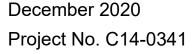


Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program

Contract Documents and Specifications

Contract No. CO-21-05 PWD





Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Sealed Tenders, clearly marked as to its contents with the Tender Bid Receipt Label provided, will be received by Legislative Services until:

2:00:00 P.M., Local Time, Tuesday, December 15, 2020

Staff will be present to receive tenders at rear delivery entrance to Victoria Hall. Tender openings will be completed by Town staff and unofficial results will be posted on website shortly after tender openings. Due to COVID-19 restrictions, public will not be able to attend tender openings.

Approximate quantities of major items are as follows:

Installation of Cured-in-Place (CIPP) 640 m Lining System - 250mm dia.

Plans, specifications and tender forms will be available for download as of **December 1**, **2020** at www.biddingo.com.

Each tender must be accompanied by a Bid Bond or a certified cheque in the amount stipulated in the Tender Documents, and the successful bidder must provide Performance and Materials Bonds as specified, with the executed Contract.

Lowest or any tender not necessarily accepted.

Mr. Brent Larmer
Manager of Legislative Services
Corporation of the Town of Cobourg
55 King Street West
Cobourg, ON K9A 2M2

Tel: 905-372-4301

Mr. Steve May, C.E.T.
Senior Project Manager
CIMA Canada Inc.
415 Baseline Road West, 2nd Floor
Bowmanville, ON L1C 5M2

Tel: 905-697-4464



THE CORPORATION OF THE TOWN OF COBOURG

TENDER BID RECEIPT LABEL

THIS LABEL MUST BE SECURELY ATTACHED TO THE FRONT OF THE SEALED ENVELOPE CONTAINING THE TENDER BID.

ALL TENDER BIDS MUST BE RECEIVED AT: LEGISLATIVE SERVICES, 55 King Street West, Cobourg ON K9A 2M2 905-372-4301

COMPLETED BY	<u>DEPARTMENT ISSUING TENDI</u>	ER BID		
TENDER BID NUMBER:	CO - 21 - 05 - PWD			
TENDER BID NAME:	Sanitary Sewer Rehabilitation			
	Program			
CLOSING DATE:	Tuesday, December	15, 2020		
CLOSING TIME:	2:00 P.M.			
	COMPANY SUBMITTING TEND	ER BID		
SUBMITTED BY:				
COMPANY CONTACT:				
COMPANY NAME:				
COMPANY ADDRESS:				
COMPANY PHONE:				
LEGISLA	ATIVE SERVICES USE ONLY			
TENDER BID RECEIPT:				
DATE:	TIME:	INITIALS:		
	ATIVE SERVICES USE ONLY			
TENDER BID OPENING:				
DATE:	TIME:	INITIALS:	INITIALS:	

Corporation of the Town Of Cobourg

Sanitary Sewer Rehabilitatio Program

Contract No. CO-21-05 PWD

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Contract Agreement

OF THE SECOND PART

		Contract No.	CO-21-05 PWD
		Contract Title	Sanitary Sewer Rehabilitation
THIS AGREEMENT m	ade at	this c	lay of, 202
BETWEEN:	Corporation	of the Town of Co	bourg (hereinafter called the "Owner")
			OF THE FIRST PART
		- and -	
		()	nereinafter called the "Contractor")

WITNESSETH

That the Owner and the Contractor in consideration of the fulfilment of their respective promises and obligations herein set forth covenant and agree with each other as follows:

ARTICLE 1

- (a) A general description of the work is: Supply of materials, labour, and equipment to conduct sanitary sewer rehabilitation, by cured-in-place pipe lining or open-cut removal and replacement, at various locations in the Town of Cobourg.
- (b) The Contractor shall, for the prices set out in the Form of Tender and except as otherwise specifically provided, provide at no additional cost to the Owner all and every kind of labour, machinery, plant, structures, roads, ways, materials, appliances, articles and things necessary for the due execution and completion of all the work set out in this Contract and shall forthwith according to the instructions of the Contract Administrator, commence the works and diligently execute the respective portions thereof, and deliver the works complete in every particular to the Owner within the time specified in the Contract.

ARTICLE 2

In the event that the Form of Tender provides for and contains a Contingency Allowance, it is understood and agreed that such Contingency Allowance is merely for the convenience of accounting by the Owner, and the Contractor is not entitled to payment thereof except for extra or additional work carried out by him/her as directed by the Contract Administrator and in accordance with the Contract and only to the extent of such extra or additional work.

ARTICLE 3

In case of any inconsistency or conflict between the provisions of this Agreement and the Plans or Specifications or General Conditions or Form of Tender or any other document or writing, the provisions of such documents shall take precedence and govern in the following order, namely:

Supplementary Specifications, if any (1) This Agreement (7) (2) Addenda, if any Specifications, if any (8) (3) Special Provisions, if any (9)Standard Specifications, if any (4) Information for Tenderers (10)**Contract Drawings** (5) Supplemental General Conditions, if any (11) Standard Drawings (6) General Conditions (12) Form of Tender

ARTICLE 4

The Contractor shall not without the consent in writing of the Contract Administrator and without restricting in any way the provisions of the General Conditions, make any assignment of any part of the whole of any monies due or to become due under the provisions of this Contract.

ARTICLE 5

The Owner covenants with the Contractor that the Contractor having in all respects complied with the provisions of this Contract, will be paid for and in respect of the works the sum of exclusive of H.S.T. subject to Article 2 hereof and subject to such additions and deductions as may properly be made under the terms hereof, subject to the provision that the Owner may make payments on account monthly or otherwise as may be provided in the General Conditions attached hereto.

ARTICLE 6

Where any notice, direction or other communication is required to be or may be given or made by one of the parties hereto to the other or to the Contract Administrator or to his/her agent, it shall be deemed sufficiently given or made if mailed or delivered in writing to such party or to the Contract Administrator at the following addresses:

The Owner: Corporation of the Town of Cobourg

55 King Street West Cobourg, ON K9A 2M2

The Contractor:

The Contract Administrator: CIMA Canada Inc.

415 Baseline Road West, 2nd Floor Bowmanville, ON L1C 5M2

Where any such notice, direction or other communication is given or made to the Contract Administrator, a copy thereof shall likewise be delivered to any agent of the Contract Administrator appointed in accordance with the General Conditions of this Contract and where any such notice, direction or other communication is given or made to such agent a copy thereof shall likewise be delivered to the Contract Administrator.

ARTICLE 7

A copy of each of the General Conditions, Supplemental General Conditions (if any), Special Provisions, Form of Tender, Information for Tenderers and Addenda is/are hereto annexed and together with the Standard Specifications, Standard Drawings and Contract Drawings relating thereto are made part of this Contract as fully to all intents and purposes as though recited in full herein.

ARTICLE 8

No implied Contract of any kind whatsoever by or on behalf of the Owner shall arise or be implied by or inferred from anything in this Contract contained, nor from any position or situation of the parties at any time, it being clearly understood that the express covenants and agreements herein contained made by the Owner shall be the only covenants and agreements upon which any rights against the Owner may be founded.

ARTICLE 9

Time shall be deemed the essence of this Contract.

ARTICLE 10

The Contractor declares that in tendering for the works and in entering into this Contract he/she has either investigated for himself/herself the character of the work and all local conditions that might affect his/her tender or his/her acceptance or performance of the work, or that not having so investigated, he/she acknowledges that his/her responsibility under the Contract is in no way reduced or limited thereby and, in either case, he/she is willing to assume and does hereby assume all risk of conditions arising, developing, or being revealed in the course of the work which might or could make the work, or any items thereof, more expensive in character, or more onerous to fulfil, than was contemplated or known when the tender was made or the Contract signed. The Contractor also declares that he/she did not and does not rely upon information furnished by any methods whatsoever by the Owner or its officers, employees or agents, being aware that any information from such sources was and is approximate and speculative only, and was not in any manner warranted or guaranteed by the Owner.

ARTICLE 11

The Contract shall apply to and be binding on the parties hereto and their successors, administrators, executors and assigns and each of them.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals the day and year first above written or caused their corporate seals to be affixed, attested by the signature of their proper officers, as the case may be.

	Owner: Corpor	Owner: Corporation of the Town of Cobourg		
	Per:			
	Per:			
	Contractor:	(Seal)		
*Witness as to Signature of Contractor				
Address	Per: __			
Occupation	Per:			
		(Seal)		

*Not necessary if corporate seal is affixed

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Tenderer's Check List

Before submitting your tender, check the following points:

1.	Has your tender been signed and your seal affixed?	
2.	Have you enclosed the required Tender Deposit or Bid Bond?	
3.	Have you enclosed the Agreement to Bond, signed and sealed by your proposed surety?	
4.	Have you entered all required prices in the Form of Tender?	
5.	Have you completed all schedules in the Form of Tender?	
6.	Have you completed, signed and included all Addenda where required to do so, and indicated the number of Addenda in your Form of Tender?	
7.	Have you listed your experience in successfully completed similar work?	
8.	Have you listed your senior staff and stated their qualifications and experience?	
9.	Have you listed your subcontractors?	
10.	Have you provided your Workplace Safety and Insurance Board experience rating?	
11.	Are the documents complete?	

- Note: 1. Your Tender will be informal and may be disqualified if **any** of the foregoing points (if applicable) have not been complied with.
 - 2. Your Tender may be disqualified if you tender unbalanced prices for **any** item in the Form of Tender.

Make sure that your tender is sealed in an envelope that is clearly marked "confidential" and properly identified with the Contract title, Contract number and your company or firm's name and postal address.

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Information For Tenderers

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program

Contract No. CO-21-05 PWD

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1. General

Sealed Tenders clearly marked "Sanitary Sewer Rehabilitation Program, Contract No. CO-21-05 PWD" with the Tender Bid Receipt Label will be received until:

2:00:00 P.M., Local Time, Tuesday, December 15, 2020

and shall be addressed to: Mr. Brent Larmer

Manager of Legislative Services Corporation of the Town of Cobourg Victoria Hall, 55 King Street West Cobourg, Ontario K9A 2M2

2. Delivery and Opening of Tenders

One (1) copy of the tender, on the forms provided, shall be submitted in person. Staff will be present to receive tenders at rear delivery entrance to Victoria Hall. All information requested shall be shown in the tender, in the space provided.

The use of mail or courier for delivery of a tender will be at the sole risk of the Tenderer and no consideration will be given to tenders deposited after the advertised deadline or the deadline as may be revised by the Town through any addenda that may be issued.

Tender openings will be completed by Town staff and unofficial results will be posted on website shortly after tender openings:

https://www.cobourg.ca/en/business-and-development/Bids-and-Tenders.aspx

Due to COVID-19 restrictions, the public will not be able to attend tender openings. Tenders will then be passed to the Owner's Contract Administrator who will check and analyze the tenders and submit a report and recommendation to the Owner.

3. Description of Works

The following is a general but not necessarily complete, description of the works to be constructed or otherwise completed by the Tenderer for the Corporation of the Town of Cobourg (Owner):

Sanitary Sewer Rehabilitation Program

Supply of materials, labour, and equipment to conduct sanitary sewer rehabilitation, by cured-in-place pipe lining or open-cut removal and replacement, at various locations in the Town of Cobourg.

Generally, work as outlined in the Form of Tender is to be constructed to the Ontario Provincial Standard Specifications (OPSS) and various other Specifications they refer to unless otherwise stated in the Special Provisions forming part of these Contract Documents.

It is the Owner's intent to award the works to one prospective Tenderer.

The various OPSS referred to in the Form of Tender are not included in these Contract Documents. It is the Tenderer's and Contractor's responsibility to obtain the current issue of these Specifications.

4. Inquiries During Tendering

Tenderers are advised that inquiries regarding the interpretation of the plans or specifications shall be made before:

12:00 P.M., Local Time, Friday, December 11, 2020

and shall be directed to the Contract Administrator, CIMA+, Telephone: 905-697-4464, extension 6908 Attention: Steve May, C.E.T., E-mail: Steve.May@cima.ca.

All responses to inquiries regarding the interpretation of plans or specifications will be provided by way of addendum issued 24-hours prior to closing.

5. Disqualification of Tenders

Under no circumstances will tenders be considered which:

- a) are received after the time stated in the Tender Advertisement, as recorded by the Owner on the date and at the place of tender, on the advertised closing date for tenders; and,
- b) are not accompanied by a certified cheque or bid bond in an amount not less than that specified.

6. Withdrawal or Qualifying Of Tenders

A Tenderer who has already submitted a tender may submit a further tender at any time up to the official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by that Tenderer for the Contract.

A Tenderer may withdraw or qualify his/her tender at any time up to the official closing time by submitting a letter bearing his/her signature and seal as in his/her tender to be delivered to the Owner. Such a submission at the location stated in the tender advertisement for the receipt of tenders must be received in sufficient time to be marked with the time and date of receipt before advertised time, as recorded by the Owner on the date and at the place of tender, on the date for closing of tenders. The Tenderer shall show his/her name, the name of the project and the Contract number on the envelope containing such letter. No email, fax transmissions or telephone calls will be considered.

7. Informal or Unbalanced Tenders

All entries in the Form of Tender shall be made in ink or by typewriter. Entries or changes made in pencil shall, unless otherwise decided by the Owner, be invalid or informal.

Tenders which are incomplete, conditional, illegible or obscure, or that contain additions not called for, reservations, erasures, and alterations (unless properly and clearly made and initialled by the Tenderer's signing officer) or irregularities of any kind, may be rejected as informal.

Each Item in the tender form shall include a reasonable price for such Item. Under no circumstances will an unbalanced tender be considered. The Owner and the Contract Administrator will be the sole judge of such matters and should any tender be considered to be unbalanced, then it will be rejected by the Owner.

Wherever in a tender the amount tendered for an Item does not agree with the extension of the estimated quantity and the tendered unit price, the unit price shall govern and the amount and the Total Tender Price shall be corrected accordingly, unless otherwise decided by the Owner.

A discrepancy in addition or subtraction in a tender shall be corrected by the Owner by adding or subtracting the Items correctly and correcting the Total Tender Price accordingly, unless otherwise decided by the Owner. Where an error has been made in transferring an amount from one part of the Form of Tender to another, the amount shown before transfer shall, subject to any corrections as provided for above, be taken to be correct and the amount shown after transfer and the Total Tender Price shall be corrected accordingly.

If a Tenderer has omitted to enter a price for an Item of work set out in the Form of Tender, he/she shall, unless he/she has specifically stated otherwise in his/her tender, be deemed to have allowed elsewhere in the Form of Tender for the cost of carrying out the said Item of work and, unless otherwise agreed to by the Owner, no increase shall be made in the total Tender Price on account of such omission.

Tenders that are based upon an unreasonable period of time for the completion of the works may be rejected.

The Owner reserves the right to waive formalities at its discretion.

Tenderers who have submitted tenders that have been rejected by the Owner because of informalities will normally be notified of the reasons for the rejection within ten (10) days after the closing date for tenders.

8. Examination of Site

Each Tenderer must examine the location of the work and fully inform themselves of existing conditions by personal examination as to the local conditions to be met with during the construction and conduct of the work. All Contract Documents are to be carefully examined. No plea of ignorance of conditions or difficulties which may be encountered in the execution of the work hereunder by failure to make such inspections or investigations will be accepted as sufficient reason for failure on part of successful Tenderer to fulfill all requirements of the Contract.

Tender quantities were estimated based on CCTV inspection video captured by the Town of Cobourg in 2019. It shall be noted that sewers were flushed and cleaned prior to CCTV inspection completed by the Town in 2019. Still images of typical defects requiring rehabilitation under this Contract are included in Typical Defects section of the Contract documents.

It shall be the Contractor's responsibility to satisfy themselves of flow rates through visual inspection expected to be encountered during completion of work under this Contract. The Contractor can anticipate flow volumes to be consistent with those typical for residential areas. No claims regarding extra work for the purposes of bypassing sewer flows will be entertained by the Owner.

The Contractor shall consider and be conscious of possible seasonal fluctuations in groundwater levels and bid/stage work to accommodate. The Contractor shall also take into consideration that groundwater levels may be higher where repairs included in this Contract are in close proximity to existing creeks, tributary waterways and/or Lake Ontario.

The Owner has made no arrangements with private owners for site investigations to be carried out by prospective Tenderers. If any person proposes to carry out any investigation on any property relative to the proposed works, he/she shall, before entering the said property, and any other property for the purpose of obtaining access to the said property, and before commencing the said investigation, contact each owner and occupant of the said properties and advise them of the nature and extent of the proposed investigation and obtain an agreement in writing thereto of all such owners and occupants. The person (or firm) who was responsible for carrying out such an investigation or for making use of any access as aforesaid shall reinstate promptly all property which has been disturbed by such investigation or by use of such access and shall be responsible for all damage and claims resulting therefrom in accordance with the said agreement of such owners and occupants.

With respect to any matter referred to in the foregoing paragraph, no person referred to therein is authorized to act as agent of or to make any representation on behalf of the Owner and the Owner shall not be responsible for any disturbance to or reinstatement of any property or for any damage or claims referred to therein.

9. Provisional Items

After the tender closing, the Items in the Form of Tender noted as being "Provisional" may have quantities modified or may be deleted from the Contract at the sole discretion of the Owner without negotiating with the bidders regardless of the percentage of the Tender the individual or combined "Provisional Items" represent. No consideration for loss of overhead costs or loss of profit on work not performed will be considered should these Items be deleted from the Contract.

10. Tender

Each tender shall include a completed Form of Tender, on the forms provided, Statements A to C inclusive, and an Agreement to Bond, all as bound herein and a tender deposit as required herein, together with any further forms or sheets which the Tenderer is instructed elsewhere herein, or in any addendum hereto, to submit with his/her tender. The Tenderer may retain the rest of the tender documents issued to him/her.

The Tenderer shall give the total tender price both in words and in figures and, except as is otherwise specifically permitted in the Form of Tender, shall fill in all blank spaces for unit prices, Item prices, lump sums and other information in the Form of Tender. All prices tendered and all amounts to be paid will be in Canadian dollars.

11. Omissions, Discrepancies and Interpretations

Should a Tenderer find omissions from or discrepancies in any of the tender documents or should he/she be in doubt as to the meaning of any part of such documents, he/she should notify the Contract Administrator, preferably in writing and not later than four (4) days before the closing date for tenders. If the Contract Administrator considers that a correction, explanation or interpretation is necessary or desirable, he/she will issue an addendum to all who have taken out tender documents.

No oral explanation or interpretation shall modify any of the requirements or provisions of the tender documents.

12. Quantities are Estimated

The quantities shown for unit price Items in the Form of Tender are estimated only and are for the sole purpose of establishing a dollar amount based on the unit price. For any work done or materials supplied on a unit price basis, the Contractor will be paid for the actual measured quantities at the respective unit prices tendered.

The Contract Administrator has the right to increase or reduce the quantities required or to suspend or omit any Item or portion of the work at any time as he/she may deem advisable.

13. Acceptance or Rejection of Tenders

Subject to the General Conditions, except as provided hereunder, neither the Contract Administrator nor any officer or employee of the Owner has authority to make or accept an offer or to enter into a Contract on behalf of the Owner or to create any rights against or to impose any obligations on the Owner. The recommendation of a tender to the Owner for acceptance does not constitute acceptance of the tender by the Owner.

A tender is accepted by the Owner when an agreement in the form bound herein is executed by the Owner and by the Tenderer or when the Contract Administrator, with the written authorization of the Owner and within the period referred to in Clause 17 hereof, has issued a written order to commence work to the Tenderer and the Owner or anyone acting on its behalf has requested the Tenderer to execute the Agreement and to return it to the Owner and the acceptance of the tender and the execution of the Agreement by the Owner are subject to the express condition that the owner receive a Performance Bond and a Payment Bond in the forms bound herein and in accordance with the requirements hereof, within seven (7) days after notification of the execution of the Agreement by the Owner has been mailed to the Tenderer whose tender has been accepted as aforesaid.

The Owner shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Tenderer prior or subsequent to or by reason of the acceptance or the non-acceptance by the Owner of any tender or by reason of any delay in the acceptance of a tender save as provided in the Contract. Tenders are subject to a formal Contract being prepared and executed.

The Tenderer agrees that the Owner has the right, at his or her own discretion, to accept or reject any non-compliant tenders without stating the reasons therefore and that the lowest or any tender will not necessarily be accepted.

The Tenderer understands that fundamental to this competition is the selection of a tender that, in the Owner's opinion, is in the best interest of the Owner. To this end, the Tenderer agrees that the Owner reserves the right to select a winning tender that may be non-compliant.

Each Item in the tender form shall include a reasonable price for such Item. Under no circumstances will an unbalanced tender be considered. The Owner and the Contract Administrator will be the sole judge of such matters and should any tender be considered to be unbalanced, then it will be rejected by the Owner.

14. Award of the Contract

The award of this Contract in whole or in part is subject to the approval of the Corporation of the Town of Cobourg. The Town reserves the right to award the Tender in part or in whole. The Town is not bound to accept the lowest of any Tender.

The Contract will be awarded for a term of one (1) year with the option to extend the Contract for up to two (2) additional one (1) year terms pending satisfactory service and available budget.

15. Period of Validity of Tender

The prices entered by the Tenderer in the Form of Tender shall be based on the assumption that the Contract Administrator's written order to commence work will be issued to the Tenderer within a 90-day period after the opening date for tenders.

16. Tender Deposit

Each tender shall include a tender deposit in the form of a certified cheque or bid bond in the minimum amount defined below, made payable to the Owner, as a guarantee for the execution of the Contract.

Total Tender Amount				De	nimum eposit quired
\$	20,000.00	or	less	\$	1,000.00
	20,000.01	to	50,000.00		2,000.00
	50,000.01	to	100,000.00		5,000.00
	100,000.01	to	250,000.00		10,000.00

Total Tender Amount			Minimum Deposit Required
250,000.01	to	500,000.00	25,000.00
500,000.01	to	1,000,000.00	50,000.00
1,000,000.01	to	2,000,000.00	100,000.00
2,000,000.01	and	over	200,000.00

The tender deposits of all but the two (2) lowest Tenderers will be returned within ten (10) days after the date of opening tenders. The tender deposits of the two (2) lowest Tenderers will be retained until a tender has been accepted and the Performance Bond, the Labour and Material Bond and the other documents required herein have been furnished to the satisfaction of the Solicitor and the Contract Administrator for the Owner, save that if a Tenderer has not been requested by the Owner to execute the Agreement within 90 days after the date of opening tenders or if the Contract Administrator has not issued to the Tenderer a written order to commence work within the said 90 days, his/her tender deposit will be returned, except as otherwise provided herein. After the execution of the Contract and the receipt by the Owner of the Performance Bond and the Labour and Material Payment Bond the tender deposit of the successful Tenderer will be returned.

If either of the above-mentioned two (2) Tenderers has not been notified within 30 days after the date of opening tenders that his/her tender has been recommended to the Owner for acceptance, he/she may apply to the Owner for the return of his/her tender deposit. Unless otherwise determined by the Owner, the tender deposit of one of the said two (2) tenders (normally the one who submitted the second lowest tender) will be returned when so applied for. The tender deposit of the other Tenderer will be retained or returned by the Owner as provided for elsewhere in this Clause.

The Owner may, in its discretion:

- a) cash a tender deposit cheque or qualify a bid bond and deposit the proceeds to its account, without prejudice to the ultimate disposition of such tender deposit as provided for herein; or
- b) return a tender deposit to a Tenderer at an earlier time than provided for herein; or
- c) return a tender deposit to a Tenderer on receipt from the said Tenderer of an alternative security acceptable to the Owner in lieu of the said tender deposit; and no such action shall prejudice the validity of the tender to which such tender deposit relate.

Except as otherwise herein provided the Tenderer guarantees that if his/her tender is withdrawn before the Owner shall have considered the tenders or before or after he/she has been notified that his/her tender has been recommended to the Owner for acceptance or that if the Owner does not for any reason receive within the period of seven (7) days as stipulated and as required herein, the Agreement executed by the Tenderer, the Performance Bond and the Labour and Material Payment Bond executed by the Tenderer and the surety company and other documents required herein, the Owner may retain the tender deposit for the use of the Owner and may accept any tender, advertise for new tenders, negotiate a Contract or not accept any tender as the Owner may deem advisable.

17. Agreement

The Tenderer agrees that, if requested so to do by the Owner or anyone acting on its behalf within 90 days after the date of opening tenders, he/she will execute in triplicate and return to the Owner the Agreement in the form bound herein within seven (7) days after being so requested. If the Tenderer has not been so requested within the said 90 days or if the Contract Administrator's written order to commence work has not been mailed or delivered to the Tenderer or his/her office or his/her postal address within the said 90 days, the Tenderer may, unless he/she has otherwise agreed or offered and except as otherwise provided herein, withdraw his/her tender.

18. Performance and Payment Bonds

The Contractor, together with a surety company approved by the Owner and authorized by law to carry on business in the Province of Ontario, shall, unless otherwise directed, furnish to the Owner a Performance Bond and a separate Labour and Material Payment Bond in the forms attached hereto each in the amount of one hundred percent (100%) of the total tender amount and such additional amount, if any, as may be required by the Owner. The Tenderer shall tender for the cost of the bonds in the Item provided for that purpose in the Form of Tender on the assumption that each bond will be in the amount of 100% of the total tender amount. In the event that either of the bonds is required to be in an amount in excess of 100% of the total tender amount the Owner will reimburse the Contractor in the amount of the premium for such excess amount after submission by the Contractor to the Owner of the surety company's relevant receipted invoice.

The Tenderer shall include with his/her tender the Agreement to Bond in the form enclosed herewith executed under its corporation seal by the surety company from which he/she proposes to obtain the required bonds.

The Owner may in its discretion decide to obtain the bonds from a surety company of its choice and may pay the premium for such bonds directly to the surety company so chosen. In that event, the Owner will notify the selected Tenderer accordingly before the tender has been accepted and the Tenderer shall execute and furnish to the Owner the required bonds as provided for herein but the Item relating to the cost of the bonds in the Form of Tender shall be deleted from the Contract and no payment shall be made to the Contractor therefore.

The Tenderer will be required to furnish the Performance Bond and the Labour and Material Payment Bond in triplicate as required herein and in the forms bound herein within seven (7) days after notification of the execution of the Agreement by the Owner has been mailed to him. One copy of the said bonds shall be bound into each of the three (3) executed sets of the Contract.

19. Proof of Ability

In order to aid the Owner in determining the responsibility of each Tenderer, the Tenderer shall complete the following statement sheets which are bound herein:

Statement 'A': Stating the Tenderer's experience in similar work which

he/she has successfully completed.

Statement 'B': Giving a list of the Tenderer's senior supervisory staff to be

employed on the Contract with a summary of the experience

of each.

If the Tenderer prefers, he/she may, in lieu of completing and submitting the abovementioned statement sheets, submit the information required by the said sheets on similar forms prepared in his/her own office, provided that the said forms bear the Tenderer's name and the date of preparation and contain up-to-date information.

The Owner reserves the right to reject any tender where satisfactory evidence of sufficient capital, plant and experience to successfully prosecute and complete the work in the specified time, is not furnished by the Tenderer.

20. Subcontractors

The Tenderer shall give in Statement "C" sheet of the tender documents the name and address of each proposed Subcontractor used in making up his/her tender. Only one Subcontractor shall be named for each part of the work to be sublet.

If the successful Tenderer wishes to substitute a Subcontractor other than the one named in Schedule "C" of the Form of Tender for a specific Item of work, he/she shall submit documentation to the Contract Administrator pertaining to the proposed Subcontractor's experience and competence to carry out the work. Employment of the proposed Subcontractor on the works is subject to the written approval of the Contract Administrator.

21. Workplace Safety and Insurance Board

The Contractor shall at the time of entering into any Contract with the Owner, make a statutory declaration or furnish a satisfactory clearance letter from the Workplace Safety and Insurance Board stating that all assessments or compensation payable to the Workplace Safety and Insurance Board have been paid.

The selected Tenderer shall submit such statutory declaration or clearance letter to the Owner in triplicate together with the Agreement executed by the said Tenderer. One copy of the statutory declaration or clearance letter shall be bound into each of the three (3) executed sets of the Contract.

22. Occupational Health and Safety

In order to avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor by executing this Contract unequivocally acknowledges that it is the constructor within the meaning of the Occupational Health and Safety Act, and the Contractor undertakes to carry out the duties and responsibilities of a constructor with respect to the work.

It is specifically drawn to the attention of the Tenderer that the Occupational Health and Safety Act provides in addition to other matters that,

"A constructor shall ensure, on a project undertaken by the constructor that,

- a) the measures and procedures prescribed by this Act and the regulations are carried out on the project;
- b) every employer and every worker performing work on the project complies with this Act and the regulations; and,
- c) the health and safety of workers on the project is protected."

23. Review of Shop Drawings and/or Submittals

The Contractor (or Subcontractor or equipment supplier acting on behalf of the Contractor) shall submit to the Contract Administrator in accordance with a procedure to be stipulated by the Contract Administrator all shop, working or setting drawings, or submittals required in order to make clear the work proposed. The Contractor shall make any changes in such drawings/submittals that the Contract Administrator may require.

When submitting such drawings/submittals, the Contractor shall notify the Contract Administrator in writing of all respects in which such drawings differ from the requirements of the Contract or from previously notified requirements of the Contract Administrator. The Contract Administrator's review of such drawings/submittals shall not be construed as approval of such differences unless the Contractor has complied with the preceding sentence hereof and unless the Contract Administrator has specifically approved such differences in writing. The Contract Administrator's review of such drawings/submittals shall not relieve the Contractor from responsibility for the correctness of the drawings/submittals or the adequacy of the details shown on the drawings/submittals.

Work shall not be carried out before the Contract Administrator's review of the shop, working or setting drawings relating to such work has been carried out.

24. Machinery and Equipment Supplied by the Contractor

The Contractor is responsible for ensuring that all machinery and equipment supplied by him, or by any Subcontractor, under the Contract complies with the requirements of the Contract and in particular with the requirements of the Specifications for machinery and equipment, and that all suppliers of such machinery and equipment comply with such requirements. Failure on the part of a supplier to comply with such requirements shall not relieve the Contractor of responsibility for ensuring that the requirements of the Contract are fulfilled.

25. Harmonized Sales Tax

.1 Requirements of Tender

The Tenderer is instructed to exclude the Harmonized Sales Tax from his/her tendered amount.

.2 Payment of the Harmonized Sales Tax

Payment of the Harmonized Sales Tax will be made to the Contractor in conjunction with amounts certified as due on Monthly Payment Certificates as approved by the Contract Administrator. The amount of tax due will be shown as a separate Item.

26. Lump Sum for Other Requirements

In this Item of the Schedule of Items and Prices, or in the case of a lump sum type Contract, in the Breakdown Schedule, the Tenderer shall enter his/her tender amount for providing Items such as watchmen, permits and approvals (other than those to be paid by the Owner), Items required by the Drawings or Specifications but which have been omitted from the Schedule and other Items required by the Contract but not specifically covered by or related to the other Items in the Schedule.

Each Progress Payment Certificate will include a percentage of the tender amount for this Item in proportion to the percentage of the permanent works completed. The submission by a Tenderer of an unbalanced price for this Item renders the tender liable to disqualification.

These lengths shall be considered final for lump sum payment for calculation purposes and the prorating percentage shall be applied.

27. Soils Investigations

Soils investigations have not been carried out within the Contract Area.

28. Time of the Essence of the Contract

Time shall be deemed to be the essence of the Contract.

The Tenderer, having carefully examined the site of the proposed works and having read, understood and accepted the provisions, plans, specifications and conditions attached hereto, each and all of which forms part of this tender, agrees to have accomplished completion of all 2021 Contract work as defined in the *Construction Act* and Special Provisions General Clause 5 on or before September 17, 2021. Subsequent phases will occur in 2022 and 2023.

Failure by the Contractor to complete any of the above works to the satisfaction of the Contract Administrator by the respective specified completion dates shall render the Contractor liable for Liquidated Damages. Completion dates shall be as specified in Clause 28.

29. Caveats

This project is contingent upon approval of works by the governing authorities including but not limited to the Ministry of Environment. The Contract will not be awarded until or unless the work is approved.

It is also to be understood that no work can be commenced until the Owner has received the necessary approvals from authorities that may have jurisdiction over parts of the work in this document.

30. Workplace Safety & Insurance Board – Experience Rating

Tenderers must submit with their bid, their experience rating under the NEER, the CAD-7, or the MAP program for the last completed year. This experience rating may be used as a factor in the selection of the successful Tenderer.

31. Conformity to Legislation

The Contractor must conform to all applicable legislation and regulations. Without limiting the generality of the foregoing this shall include the Occupational Health and Safety Act and Regulations, the Labour Standards Act, the Highway Traffic Act, the Workplace Safety Insurance Board Act and the Environmental Protection Act.

32. Availability of Tender Contract Documents

Should the Contractor make a request to the Contract Administrator, an excel copy of the item bid form will be provided. The Contractor assumes full responsibility for ensuring any changes, or modifications to the item bid form, whether by addenda or otherwise, are fully understood and followed as the item bid form may not be reissued during the tender period by the Contract Administrator.

33. Multi-Year Project

This Contract will be phased over a three (3) year period to satisfy budget approvals and requirements. Work identified to take place in 2021 has been budgeted for in the Town of Cobourg's 2020 capital budget. However, work identified to take place in subsequent years will not proceed unless the Town of Cobourg Council approves additional budget as part of the budget approval process for 2021 and subsequent years.

It is the intention that the work will be awarded to one successful tenderer for the three (3) year period, however, work in 2022 and 2023 is subject to satisfactory performance by the successful tenderer during the execution of the work in 2021. The Town, in its sole discretion, reserves the right to cancel or proceed with any additional work called for under this Contract in 2022 and subsequent years and the successful tenderer shall have no claim whatsoever for lost revenue or profits if the anticipated work under this Contract does not proceed in 2022 or subsequent years or if the Town should choose in its sole discretion to procure services for completion of like or similar work for completion in 2022 or subsequent years through an alternative process.

Confirmation of subsequent phases of this Contract and confirmation of award of subsequent phases to the successful bidder pending satisfactory performance will occur annually during the month of May. It is anticipated that the value of work tendered annually could be up to a maximum of \$1,000,000.00. Should the confirmation of award change as a result of unforeseen circumstances affecting the Town of Cobourg's approval processes, the tenderer shall have no claims for lost revenues or profits.

If the Town elects to exercise the option to renew the contract for one or more additional optional one (1) year terms, then the Contractor may request a price increase at each annual renewal. If the Town receives and accepts this request then the pricing shall also be adjusted on the anniversary date of the Contract award, by no more than the annual percentage change in the most recent issuance of the Consumer Price Index (CPI) All items – Ontario, as issued by Statistics Canada (http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/cpis01g-eng.htm), and remain firm for the rest of that Contract year. Should the annual percentage change of the Consumer Price Index (CPI) be negative in subsequent years, first Phase unit pricing will be held for the Phase work to be completed in the associated year.

Should the Town elect to proceed with work in subsequent years, the Contract Administrator and/or Owner may request the Lump Sum prices for Portable Washroom Facilities and Temporary By-Pass Pumping be updated to reflect work required as part of the subsequent project phases. The Contract Administrator may request the price for Portable Washroom Facilities be revised in the event that future phase work is expected to stretch over a greater period of time or affect a greater number of resident's simultaneously, requiring provision of more facilities. The Contract Administrator may request the price for Temporary By-Pass Pumping be revised in the event that future phase work is anticipated to involve a greater percentage of trunk sewers requiring more extensive by-pass pumping.

34. Town of Cobourg Purchasing By-law

Acceptance of any bid submission or subsequent award shall be in compliance with the Town of Cobourg purchasing By-law 016-2012.

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Form Of Tender

(To Be Submitted By The Tenderer)

Form of Tender

Owner:		Corporation of the Town of Cobourg		
Project:		Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD		
Contract Admir	nistrator:	CIMA Canada Inc. 415 Baseline Road, 2nd Floor, Bowmanville, ON L1C 5M2 Tel: 905-697-4464		
TENDERER:	Name			
	Address	Postal Code		
	Tel:	Fax:		
	E-mail:			
	Name of Pe	rson Signing		
	Position of F	Person Signing		

Note: The Tenderer's name and address must be inserted above, and in the case of an unincorporated firm, the name and residence of each and every member of the first must be inserted.

To: Corporation of the Town of Cobourg 55 King Street West Cobourg, Ontario K9A 2M2

I (We)
having carefully examined the locality and site of the proposed works, and all Contract
documents relating thereto, including the: form of Agreement, Addendum/Addenda
Noto No * inclusive, Special Provisions, if any, Information for
Tenderers, Supplementary General Conditions, if any, General Conditions,
Supplementary Specifications, if any, Specifications, if any, Standard Specifications, if
any, Contract Drawings, Standard Drawings, Form of Tender, forms of Performance
Bond and Labour and Material Payment Bond, hereby tender and offer in accordance
therewith to enter into a Contract within the prescribed time to construct the said works
in strict accordance with the Contract Documents and such further detail drawings as
may be supplied from time-to-time and to furnish all materials, labour, tools, plant,
matters and things necessary therefore complete and ready for use within the time
specified for the Total Tender Price (excluding HST) of:
sum as may be ascertained in accordance with the Contract.

The Aforesaid Sum is Made up as Follows:

Schedule of Items and Prices

The Unit Prices tendered shall include all costs for labour, plant, the supply and installation of all materials, sheeting, dewatering, clearing, excavation, excavation stabilization, trenching, bedding surround, supporting, attaching, protecting, backfilling, testing, traffic control, barricades, signs, erosion control, silt control, dust control, disposal of surplus material off-site and complete restoration, all as detailed on the drawings and in the specifications.

Note that all costs for survey control, layout, clearing and grubbing, temporary protective fence, are to be included in the applicable Unit Prices for the Works.

Provisional Items may or may not be taken into account by the Owner in comparing tenders and awarding a Contract. Consideration of Provisional Items will be at the discretion of the Owner.

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Spec No. (ie. 401)	Refers to Ontario Provincial Standard Specifications (OPSS) as listed in Special Provision General Clause 2 (copies are not included in the Contract Documents and each Contractor must obtain the current issue of these specifications)
SP	Refers to the Special Provisions.
(P)	Plan Quantity Payment Item

ITEM NO.	DESCRIPTION	SPEC NO.	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
PART	'A': SANITARY SEWER REHABILITA	ATION				
A1	Flush, Clean, and CCTV Sewer	MUNI 409, 411, SP	2350	m		
A2	Installation of Cured-in-Place Pipe (CIPP) Lining System (End to End)	MUNI 409, 411, MUNI 460, SP				
	a) 200mm dia. (Provisional)		10	m		
	a) 250mm dia.		640	m		
	b) 300mm dia. (Provisional)		10	m		
	c) 450mm dia.		15	m		
A3	Spot Repair by Cured-in-Place Pipe (CIPP) Lining System Mainline	MUNI 409, 411, MUNI 460, SP				
	a) 200mm dia.		20	m		
	b) 250mm dia. (Provisional)		10	m		
	c) 300mm dia. (Provisional)		10	m		
	d) 450mm dia. (Provisional)		10	m		
	Service Connection	MUNI 409, 411, MUNI 460, SP				
	a) 200mm dia.	100, 51	13	ea.		
	b) 250mm dia.		15	ea.		
	c) 300mm dia.		10	ea.		
	d) 450mm dia.		2	ea.		
A4	Portable Washroom Facilities (Residents Only)	SP	100%	LS		
A5	Temporary By-Pass Pumping	SP	100%	LS		
A6	End-of-Warranty Inspection	SP	2350	m		

ITEM NO.	DESCRIPTION	SPEC NO.	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
A7	Spot Repair by Open-Cut Method (Provisional)	MUNI 401, MUNI 409, MUNI 410, MUNI 310, MUNI 1820, MUNI 1841, MUNI 1010, SP				
	a) Mainline	0.	10	m		
	b) Service Connection		5	ea.		
A8	Mechanical Cleaning for Excessive Debris or Service Trimming (Provisional)	SP	75	m		
A9	Service Trimming (Provisional)	SP	5	ea.		
	Flush, Clean, and CCTV Sanitary Lateral (Provisional)	MUNI 409, SP	315	m		
	Sanitary Lateral Repair by Open-Cut Method (Provisional)	MUNI 409, MUNI 410, MUNI 310, MUNI 510, MUNI 1820, MUNI 1841, MUNI 1010,				
	a) 100mm dia.	SP	80	m		
	b) 150mm dia.		40	m		
A12	Sanitary Lateral Repair by Cured-in- Place-Pipe (CIPP) Lining System (Provisional) a) 100mm dia.	MUNI 409, 411, MUNI 460, SP	80	m		
	b) 150mm dia.		40	m		
A13	Clean Out for CIPP Lining Sewer Laterals (Provisional)	MUNI 401, MUNI 410, MUNI 310, MUNI 510, SP	12	ea.		
	Disposal of Unsuitable Earth Material (Provisional)	SP	200	t		
A15	Imported Select Subgrade Material (Provisional)	MUNI 314	200	t		
A16	19mm Clear Stone Bedding w Geotextile Wrap (Provisional)	SP	50	t		
	Total Part 'A' (Carried to Summary)					\$ -

ITEM NO.	DESCRIPTION	SPEC NO.	EST. QTY.	UNIT	UNIT PRICE	AMOUNT	
PART	PART 'B': MISCELLANEOUS						
B1	Mobilization and Demobilization	SP	100%	LS			
B2	Supply and Maintain Field Office	SP	100%	LS			
В3	Bonds, Insurance, and Maintenance Security	SP	100%	LS			
	Total I	\$ -					
	SUMMARY						
	Total Part 'A' - Sanitary Sewer Rehabilitation				-		
	Total Part 'B' - Miscellaneous				-		
	Sub-Total (Excluding HST)					\$ -	
	HST (13% of Sub-Total)					\$ -	
	Total Tender Amount (Including HST)				\$ -		

The Tenderer agrees that, if this tender is accepted by the Owner:

- 1) He/she will carry out any additional or extra work (including the supplying of any additional materials or equipment pertaining thereto) or will delete any work as may be required by the Contract Administrator in accordance with the Contract:
- The carrying out of any work referred to in paragraph 1) above or the issuance by the Contract Administrator of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order shall not, except as expressly stated in such Contract Change Order, waive or impair any of the terms of the Contract or of any Contract Change Order previously issued by the Contract Administrator or any of the rights of the Owner or of the Contract Administrator under the Contract:
- 3) He/she will pay to the Owner the sum specified in the Contract as liquidated damages for each calendar day that the work under the Contract as expressly modified by all Contract Change Orders issued by the Contract Administrator remains uncompleted after the expiry of the Time for Completion specified in the Contract or the extended time for completion allowed in writing by the Contract Administrator or the interim completion date as specified in the Contract.

The prices applicable to work referred to in paragraph 1) above shall be determined as follows:

- (a) The Schedule of Items and Prices shall apply where applicable;
- (b) If the above Schedule is inapplicable the prices shall be determined in accordance with Section 3.11 of the General Conditions.

The Tenderer agrees that he/she is not entitled to payment of Provisional Items, except for additional work carried out by him in accordance with the Contract and only to the extent of such additional work, as authorized by the Contract Administrator in writing.

The Tenderer agrees that, if so requested in writing by the Owner, he/she will enter into a Contract with the Owner based upon his tender but jointly in the names of the Tenderer and the Tenderer's parent company, if any. The Tenderer further agrees that any request by the Owner as indicated above is not and shall not be deemed to be a counteroffer by the Owner.

The Tenderer agrees that this tender is subject to a formal Contract being prepared and executed.

The Tenderer declares that no person, firm or corporation other than the Tenderer has any interest in this tender or in the proposed Contract for which this tender is made.

The Tenderer further declares that this tender is made without any connection, comparison of figures or arrangements with, or knowledge of, any other corporation, firm or person making a tender for the same work and is in all respects fair and without collusion or fraud.

The Tenderer further declares that no member of the Board and no officer or employee of the Contract Administrator is or will become interested directly or indirectly as a contracting party, partner, surety or otherwise in or in the performance of the Contract or in the supplies, work or business to which it relates, or in any portion of the profits thereof, or in any of the monies to be derived therefrom.

The Tenderer having carefully examined the site of the proposed work, and having read, understood and accepted the provisions, plans, specifications, and conditions attached hereto, each and all of which forms part of this Tender, agrees to accomplish completion of all Contract work as defined in the Construction Act as described in Clause 3 of the Information to Tenderers and Clause 5 of the Special Provisions General sections.

If the Contract time above specified is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shits will be required throughout the life of the Contract to the extend deemed necessary by the Contractor to ensure that the work will be completed within the Contract time specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various Items of work and no additional compensation will be allowed therefore.

The Tenderer agrees that he/she will furnish the Owner a copy of his latest financial statement within 4 days after being requested to do so by the Owner.

The Tenderer agrees that the Owner reserves the right to reject any or all tenders and that the lowest or any tender will not necessarily be accepted.

The Tenderer solemnly declares that the several matters stated in the foregoing tender are in all respects true.

A certified cheque or bid bond in the amount specified in Clause 16 of the Information for Tenderers, made payable to the Owner is attached hereto as the required tender deposit. This cheque or bid bond shall constitute a deposit which shall be forfeited to the Owner if the successful Contractor fails to file with the Owner a 100% Performance Bond and a 100% Labour and Material Payment Bond, satisfactory to the Owner within ten (10) calendar days from the date of receipt of Notice of Acceptance of the Tender.

Dated at	_ this	_ day of	_, 20	
Signature of Witness		Signature of Tende	rer	

Note: If the tender is submitted by or on behalf of a corporation, it must be signed in the name of such corporation by the duly authorized officers and the seal of the corporation or water seal, must be affixed. If the tender is submitted by or on behalf of an individual or a partnership a seal must be affixed opposite the signature of the individual or of each partner and each signature shall be witnessed.

Statement "A"

Summary of Tenderer's Experience In Successfully Completed Similar Work. (Minimum Of Four (4) Contracts Required)

Date of Completion	
Description of Work (incl. sewer diameter and length and temporary by- pass pumping capacity)	
Contractor Role (General, Sub, etc.)	
Name of Owner	
Name of Supervisor	
Value of Work	
Consulting Engineer Responsible for the Works and Contact Information	
Date of Completion	
Description of Work (incl. sewer diameter and length and temporary by- pass pumping capacity)	
Contractor Role (General, Sub, etc.)	
Name of Owner	
Name of Supervisor	
Value of Work	
Consulting Engineer Responsible for the Works and Contact Information	

D ((0) (
Date of Completion	
Description of Work (incl. sewer diameter and length and temporary by- pass pumping capacity)	
Contractor Role (General, Sub, etc.)	
Name of Owner	
Name of Supervisor	
Value of Work	
Consulting Engineer Responsible for the Works and Contact Information	
Date of Completion	
Description of Work (incl. sewer diameter and length and temporary by- pass pumping capacity)	
Contractor Role (General, Sub, etc.)	
Name of Owner	
Name of Supervisor	
Value of Work	
Consulting Engineer Responsible for the Works and Contact Information	

Statement "B"

Qualifications of Tenderer's Senior Supervisory staff to be employed by this Contract.

Name	Appointment	Qualifications and Years of Experience

(To be Completed and Submitted by the Tenderer)

Statement "C"

List of Proposed Subcontractors

Clause 20 of the Information for Tenderers requires the Tenderer to list on this Statement Sheet the name of each proposed Subcontractor. For the Tenderer's convenience and to ensure that a complete list is submitted with the tender, a list of possible sub-trades has been provided below. The Tenderer shall make an entry against each possible sub-trade listed either by naming the proposed Subcontractor or by entering "By Own Forces", whichever applies. No blank spaces are to be left.

If, in addition, the Tenderer proposes to sublet a part of the work which is not listed below, he/she shall add the sub-trade and the proposed Subcontractor's name to the list.

Failure by a Tenderer to Comply with the Foregoing Requirements May Result in His/Her Tender Being Disqualified by the Owner.

Sub-Trade	Proposed Subcontractor
CIPP liner installation	
Installation of sanitary sewers by open excavation method	
Asphalt paving	
Landscape – Sod	
Temporary By-Pass Pumping	
Sewer CCTV Inspection	

(To be Completed and Submitted by the Tenderer)

**
**
**

Agreement to Bond

**

Date: _____ Bond No.

The Corporation of the Town of Cobourg 55 King Street West Cobourg, Ontario K9A 2M2

RE: Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

In consideration of the Corporation of the Town of Cobourg, (hereinafter referred to as "the Owner") accepting the tender of and executing an Agreement with:

(hereinafter referred to as "the Tenderer") for the construction of the **Sanitary Sewer Rehabilitation Program, Contract No. CO-21-05 PWD**, subject to the express conditions that the Owner receive the Performance Bond and Labour and Material Payment Bond in accordance with the said tender, we the undersigned hereby agree with the Owner to become bound to the Owner as surety for the Tenderer in a Performance Bond and a Labour and Material Payment Bond each in an amount equal to 100% of the Contract price or other such greater amount as may be determined by the Owner, in the Owner's forms of Performance Bond and Labour and Material Payment Bond and in accordance with the said tender, and we agree to furnish the Owner with said Bonds within seven (7) days after notification of the acceptance of the said tender and execution of the said Agreement by the Owner has been mailed to us.

Yours very truly,

(Seal)

Note: This Agreement To Bond must be executed on behalf of the Surety Company by its authorized officers under the company's corporate seal shall become a part of the tender.

* * Enter name, address and telephone number of the Surety Company at the top of the page.

(To be Completed and Submitted by the Tenderer)

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Special Provisions General

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

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1. Contract Drawings

The maps and lists included below form part of the Contract Documents:

No.	Title
1	MAP: Sanitary Sewer Repair Locations
2	Table 1: Sanitary Sewer Repairs

Changes or addition to list details in accordance with which work is to be performed will be furnished from time to time by the Contract Administrator and will become part of the Contract Documents.

The locations of repairs shown in the Contract Documents is in accordance with the information available from preliminary inspections performed for this program and is not guaranteed. It is the Contractor's responsibility to determine the exact location of the necessary repairs including the start and end points ensuring that defects are fully captured within the length of the repair.

2. Ontario Provincial Standard Specifications (OPSS)

The OPSS listed below and those referenced herein form part of the Contract Documents.

OPSS Spec. No.	Date	Title
MUNI 100	Nov 2019	OPSS MUNI General Conditions of Contract
PROV 127	Apr 2018	Schedule of Rental Rates for Construction Equipment, including Model and Specification Reference
MUNI 180	Nov 2016	General Specification for the Management of Excess Materials
MUNI 310	Nov 2017	Construction Specification for Hot Mix Asphalt
MUNI 351	Nov 2019	Construction Specification for Concrete Sidewalk
MUNI 353	Nov 2019	Construction Specification for Concrete Curb and Gutter Systems
MUNI 401	Nov 2018	Construction Specification for Trenching, Backfilling, and Compacting
MUNI 402	Nov 2016	Construction Specification for Excavating, Backfilling, and Compacting for Maintenance Holes, Catch Basins, Ditch Inlets and Valve Chambers

OPSS Spec. No.	Date	Title
407	Nov 2015	Construction Specification for Maintenance Hole, Catch Basin, Ditch Inlet and Valve Chamber Installation
MUNI 409	Nov 2017	Construction Specification for Closed-Circuit Television (CCTV) Inspection of Pipelines
MUNI 410	Nov 2018	Construction Specification for Pipe Sewer Installation in Open-Cut
411	Nov 2015	Construction Specification for the Cleaning and Flushing of Pipe Sewers, Catchbasins, Maintenance Holes, Ditch Inlets, and Oil-Grit Separators
MUNI 460	Nov 2018	Construction Specification for Gravity Pipe and Sewer Rehabilitation by Cured-In-Place Pipe
MUNI 510	Nov 2018	Construction Specification for Removals
MUNI 802	Nov 2019	Construction Specification for Topsoil
803	Apr 2018	Construction Specification for Sodding
MUNI 1010	Nov 2013	Material Specification for Aggregates-Base, Subbase, Select Subgrade, an Backfill Material
MUNI 1820	Nov 2017	Material Specification for Circular and Elliptical Concrete Pipe
MUNI 1841	Nov 2018	Material Specification for Non-Pressure Polyvinyl Chloride Pipe Products
MUNI 1850	Nov 2018	Material Specification for Frames, Grates, Covers, and Gratings

3. Plan Quantity Items

Measurement for payment of the Items designated (P) in the Form of Tender is by plan quantity, as may be revised by adjusted plan quantity at the discretion of the Contract Administrator.

4. Guaranteed Maintenance

The Contractor shall make good in a permanent manner, satisfactory to the Owner, any and all defects or deficiencies in the work, both during construction and during the twenty-four (24) month period of maintenance per GC 7.16. The Contractor shall commence repairs on any work identified as defective under this Clause within forty-eight (48) hours of receipt of notice from the Owner or the Contract Administrator.

The decision of the Owner and the Contract Administrator shall be final as to the necessity for repairs or for any work to be done under this Clause.

5. Contract Time And Liquidated Damages

(1) Time

Time shall be of the essence for this Contract.

For purposes of this Contract, GC 1.04 of the General Conditions is revised, in that Contract Time means the time stipulated herein for completion of the Work as defined in the Construction Act.

(2) Progress of the Work and Contract Time

This Contract will be phased over a three year period to satisfy budget approvals and requirements. It is the intention that the work will be awarded to one successful bidder for the three (3) year period, however, work in 2022 and 2023 is subject to satisfactory performance by the successful bidder during the execution of the work in 2021. The Town, in its sole discretion, reserves the right to cancel or proceed with work after 2021 and the successful bidder shall have no claim whatsoever for lost revenue or profits if the work does not continue.

It is expected that the Contract Administrator will issue a written order to commence the work as per GC 7.01.02 on or about June 14, 2021.

The Contractor shall accomplish completion of all Phase 1 Contract work as defined in the Construction Act on or before September 17, 2021. Subsequent phases will occur in 2022 and 2023.

If the Contract time above specified is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to ensure that the work will be completed within the Contract time specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various Items of work and no additional compensation will be allowed therefore.

(3) Liquidated Damages

It is agreed by the parties to the Contract that in case all the work called for under the Contract is not completed by the dates specified, or as extended in accordance with Section GC 3.06 of the General Conditions, a loss or damage will be sustained by the Owner. Since it is and will be impracticable and extremely difficult to ascertain and determine the actual loss or damage which the Owner will suffer in the event of and by reason of such delay, the parties hereto agree that the Contractor will pay to the Owner the sum of **One Thousand, Two Hundred Dollars (\$1,200.00)** as liquidated damages for each and every days delay in achieving completion of the work beyond the dates prescribed. It is agreed that this amount is an estimate of the actual loss of damage to the Owner which will accrue during the period in excess of the prescribed date for completion.

The Owner may deduct any amount under this paragraph from any moneys that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Owner.

6. Contractor's Authorized Representative

Authorized representative as referenced in GC 7.01.05 is defined as an employee of the Contractor.

7. **OPS General Condition**

Wherever in this Contract reference is made to the General Conditions, it shall be interpreted as meaning the OPS MUNI General Conditions of Contract (OPSS.MUNI 100, November 2019).

8. Restrictions on Open Burning

Open fires will not be permitted within the limits of this Contract. Brush and debris may as an alternative to burning, be disposed of outside the Contract Limits and in compliance with the requirements specified elsewhere for Management and Disposal of Excess Material.

9. Payments

Except as herein provided, payments under this Contract will be made in accordance with Subsection GC 8.02 of the General Conditions. Measurement for payment will be in accordance with GC 8.01, including items designated (P) on the Tender Form will be by Plan Quantity, and may be revised by adjusted Plan Quantity.

Progress Payments

Progress Payments shall be processed in accordance with GC 8.02.04.01. Progress payments shall be made on a monthly basis unless specified otherwise in the Contract Documents.

GC 8.02.04.01.04 is deleted and replaced with the following:

Payment shall be made within 30 days of receipt of a proper invoice and defined in this contract.

Fifteen percent (15%) of all monies due to the Contractor in accordance with the Progress Payment Certificate, up to a limit of fifteen percent (15%) of the contract price, shall be retained by the Township and shall be termed the holdback. The holdback shall be comprised of a ten percent (10%) Statutory Holdback in accordance with the Construction Act and a five percent (5%) Maintenance Holdback of the total amount of all monies due the Contractor, which shall be held for the twenty-four (24) month maintenance period. No interest shall be paid on the holdback.

The Contractor shall submit an invoice, which must include the following to be considered a Proper Invoice under the Construction Act:

- 1. The Contractor's name and address;
- 2. The date of the application for payment and the period during which services or materials were supplied;
- 3. Information identifying the authority under which services or materials were supplied;
- 4. The amount payable for the services or materials that were supplied and the payment terms;
- 5. The name, title, telephone number and mailing address of the person to whom payment is to be sent;
- 6. Approved Change Orders signed by the Owner, Consultant and Contractor;
- 7. Copy of successful testing and commissioning reports where specified in the Contract Special Provisions,
- 8. Proposed payment certificate;
- 9. Copy of completed Time and Material breakdown form, when work was performed on a Time and Material basis; and
- 10. A Substantial Performance Release of Claims letter, a Completion Release of Claims letter or a Final Release of Claims letter (when applicable)

Substantial Performance Certificate, Payment and Statutory Holdback Release

At the time of Substantial Performance of the Contract, the Township shall issue a Progress Payment with the Substantial Performance Certificate which shall show the total amount due the Contractor, less five percent (5%) Maintenance Holdback and any additional amounts which are to be retained to cover work to be performed as outlined in GC 8.02.04.11 Owners Set-off.

Ten percent (10%) holdback of completed work shall become payable after sixty (60) days from the date on which a copy of the Certificate of Substantial Performance is published in a construction trade newspaper, providing that no notice of liens or other claims against the Contract have been received by the Township during this period. This payment shall be set forth on a Holdback Release Certificate.

The Contractor shall include in the price the publication of the Certificate of Substantial Performance. Publication is mandatory whether the Contractor requests Substantial Performance or not.

The Contractor shall submit an invoice, which must include a Substantial Performance Release of Claims letter in addition to the previously noted requirements to be considered a proper invoice.

The Contractor is advised that the Township may withhold payment on Interim and Holdback Release Certificates up to twenty-eight (28) calendar days from the date of receipt of the executed Payment Certificates and Proper Invoices.

Completion Certification, Payment and Completion Holdback Release

At the time of completion of the Contract, the Township shall issue a completion payment with the Completion Certificate which shall show the total amount due the Contractor, less the five percent (5%) maintenance holdback and any additional amounts which are to be retained to cover work to be performed as outlined in GC 8.02.04.11 Owners Set-off.

The Completion Payment Certificate is to include the completion holdback release will be issued within sixty-one (61) days after the date of completion as specified under Sub Section 2.03 of the Construction Act as amended in 2018. The date for interest due to late payment shall commence following ninety-one (91) days after the date of completion of the Work.

Ten percent (10%) of all work completed after the issuance of the Substantial Performance Certificate may be subject to holdback to become payable after issuance of the certificate of contract completion.

As a condition of the final holdback payment, the Contractor shall provide the required Property Owner's Releases as specified in Section 10 and attached, as appropriate

The Contractor shall submit an invoice, which must include A Final Release of Claims letter in addition to the previously noted requirements to be considered a proper Invoice.

10. Utilities

Sections GC 2.01.01 and GC 7.13.02 of the General Conditions are deleted in their entirety and are replaced by the following:

"The Contractor shall be responsible for the protection of all utilities at the job site during the time of construction."

The Owner will be responsible for the relocation of utilities where required. However, no claims will be considered which are based on delays or inconvenience resulting from the relocation not being completed before the start of this Contract.

It is, the Contractor's responsibility to contact the appropriate agencies for further information prior to commencing work in regard to the exact location of all utilities, to exercise the necessary care in construction operations and to take such other precautions as are necessary to safeguard the utilities from damage.

If the location of existing utilities are found to significantly impact the Contractor's ability to perform works as specified within the Contract Documents, the Contract Administrator shall be notified. The Contract Administrator may make adjustment to the scheduled work as necessary. Payment shall be made for work performed under the appropriate items contained within this Contract

The Contractor shall be responsible for supporting of all existing utilities, including poles, within the Contract Limits, including co-ordination with the required utility stakeholder authorities.

11. Dust Control

As a part of the work required under Section GC 7.03 of the General Conditions, the Contractor shall take such steps as may be required to prevent dust nuisance resulting from his operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the work.

Where the work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used together with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the work is being carried out.

The cost of all such preventative measures shall be borne by the Contractor.

12. Traffic Control, Flagging

Flagging for traffic control on this Contract shall be in conformance with the procedure outlined in OTM Book 7 (Ontario Traffic Manual), and as per the requirements of the Ontario Health and Safety Act Reg. 213/91, Section 69.1.

13. Construction Signs

In accordance with Section GC 7.06 of the General Conditions, the Contractor is responsible for the supply, erection, maintenance and subsequent removal of all temporary traffic controls, including signs, lights, barricades, delineators, cones, detour signage, etc., required on the work.

Traffic controls shall be provided in general accordance with the latest edition of the "OTM Book 7".

A Traffic Control Plan indicating all traffic signage layout and types in a neat legible manner shall be submitted for approval by the Contract Administrator a minimum of three weeks prior to construction commencement and shall be in accordance with the latest edition of the "OTM Book 7". Revisions to the Traffic Control Plan shall be made to reflect ongoing changes on the project as needed and shall be approved by the Contract Administrator.

Traffic controls shall be operational before work affecting traffic begins.

14. Traffic and Street Signs

Where work to be completed impacts existing traffic and / or street signs, the Contractor will be responsible for the removal and salvage of existing traffic and street signs, and their re-erection as directed by the Contract Administrator following completion of the work.

Scheduling for sign removal shall be as approved in advance by the Contract Administrator.

Regulatory signs such as "Stop" and "Yield" must be maintained throughout the duration of the work and all temporary positioning shall be approved by the Contract Administrator.

15. Maintenance of Traffic

It is the responsibility of the Contractor to visit each site to become familiar with existing traffic volumes and patterns. No specific AADT (Average Annual Daily Traffic) information is available for this project. However, the Contractor shall take into consideration all traffic into and out of the job site areas as will occur during regular working hours.

It is understood that implementation of traffic controls will require ongoing review and adjustment to suit construction operations.

No claims for delays due to traffic will be considered for compensation.

At the end of each working day, the Contractor must ensure that all sites have been restored to an acceptable condition in which emergency vehicles are able to access all properties within the work zone.

In the event that traffic detours or road closures are required, the Contractor shall notify Police, Fire and Ambulance services at least 48 hours prior to commencing work. Prior to initiating any work, the Contractor shall obtain at its own expense a Road Occupancy Permit from the Town of Cobourg wherever works are anticipated to impact normal traffic.

Safe pedestrian access to residences shall be maintained at all times.

The Contractor shall maintain at minimum one lane for traffic in all locations where work is being performed unless it is unsafe to do so. Where traffic is reduced to a single lane the Contractor shall provide temporary flag persons or other approved measures to facilitate the movement of two-way traffic. Not withstanding provisions allowed for in "OTM Book 7" the use of 'yield to oncoming traffic' arrangements shall only be allowed under specific circumstances and shall be subject to the ongoing approval of the Contract Administrator in location where it is allowed. If it is unsafe to complete the work while maintaining a single lane of traffic, the Contractor shall submit a Traffic Control Plan indicating all signage layout and types, and detour routes, in a neat legible manner, to the Contract Administrator for review and approval a minimum of one (1) week prior to commencement of work all submissions shall be in accordance with "OTM Book 7".

The Contractor shall organize/stage works such that at the end of each working day or at such time that the Contractor is no longer actively occupying the site roads affected are reopened to allow for two-way traffic.

Traffic controls shall be operational before work affecting traffic begins.

Any excavation left open and unattended, for any duration shall be securely enclosed in temporary construction fencing or an approved equivalent barrier to traffic and pedestrians.

In the event that the Owner has approved the Contractor's request for night work, and work is expected to impede traffic, the Contractor shall provide all appropriate traffic controls and maintenance as specified herein in addition to illumination of all

traffic control signage/detours to the satisfaction of the Owner and/or Contract Administrator.

16. Emergency and Maintenance Measures

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the contracting firm, shall be provided to the Contract Administrator. This official shall be available at all times and have the necessary authority to mobilize labour and machinery and to take any action as directed by the Contract Administrator in case emergency or maintenance measures are required regardless of whether the emergency or requirement for maintenance was caused by the Contractor's negligence, act of God, or any cause whatsoever.

It shall be the Contractor's responsibility to ensure that erosion and sediment control measures within the limits of the Contract are in place and fully operational to the satisfaction of the Contract Administrator, should the onset of severe inclement weather be forecast.

Should the Contractor be unable to carry out immediate remedial measures required, the Owner will carry out the necessary repairs, the costs for which shall be charged to the Contractor.

17. Management and Disposal of Excess Material

The requirements of OPSS.MUNI 180 shall apply to this Contract, revised as follows:

- 1. Section 180.03, Definitions, shall be amended by the addition of the following:
 - Work area: means the road allowance, right-of-way, and property with a boundary common to the road allowance or right-of-way within the Contract limits.
- 2. Subsection 180.07.03, Conditions on Management as Disposable Fill, shall be amended by the addition of the following:
 - Recycled hot mix asphalt or excess bituminous pavement shall not be used as trench backfill or bedding and shall be disposed off-site in accordance with OPSS and MECP specifications.
- 3. MECP O. Reg. 406/19 governs acceptance criteria for excess material.

All suitable material excavated within the road right-of-way may be used as trench backfill. All unsuitable or excess materials shall be managed, handled and disposed of at suitable locations, in accordance with applicable Municipal, Provincial, Federal and locally governing Conservation Authority jurisdictions, policies and legislations and disposed of off-site at an approved location.

The Contractor's qualified person (QP) shall be responsible for confirming the receiving site for excess material is in accordance with the current provincial legislation and to the satisfaction of the Owner and Contract Administrator. The

Contractor shall provide the Contract Administrator with all disposal related documentation.

Contractors to note the requirement as stipulated in Town of Cobourg By-law 035-2012, Dumping of Fill and the Removal of Fill which can be viewed at:

https://cobourg.civicweb.net/filepro/documents?expanded=9849,145645,153634, 130458&preview=7972

Prior to the commencement of any earth removal from the site, the Contract Administrator and the Owner shall be provided with proposed locations to allow for a preliminary screening, as the locations may relate to Provincially Significant Wetlands, future Municipal projects, or areas regulated by the local Conservation Authority.

The Contractor shall provide the Contract Administrator with the proposed disposal location two (2) weeks prior to the commencement of any earth removal from the site.

For the purpose of this Contract, all excess materials shall meet the requirements of the Ministry of Environment "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (April 15, 2011)", which can be viewed at the following website:

https://www.ontario.ca/environment-and-energy/soil-ground-water-and-sediment-standards-use-under-part-xv1-environmental

The Contractor shall note that geotechnical assessments have not been completed for this project. All soil / earth within or immediately adjacent to the public right-of-way shall be assumed to have levels of Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC) that exceeds the acceptable limits. Therefore, earth excavation material within or adjacent to the right-of-way shall not be considered to be contaminated if the SAR and / or EC limits are exceeded. It is the Contractor's responsibility to find a suitable / approved disposal site and no additional claims will be entertained as a result of these elevated levels.

All costs for testing of excavated material for the purposes of determining an appropriate, approved disposal site shall be borne by the Contractor and considered included in bid prices for this Contract.

18. Disposal of Sewer Materials

All sludge, dirt, sand, rocks, grease, and other solid or semi-solid material shall be cleaned from the sewer in accordance with OPSS 411. All loose debris shall be collected at the downstream maintenance hole of the section being cleaned, and removed. The Contractor shall dispose of all dirt, debris and other materials removed by sewer flushing operations at the Town of Cobourg Wastewater Treatment Plant #2 located at 95 Normar Road, Cobourg, ON. Flushing of any debris downstream of the cleaning area is not permitted. All summer deliveries to the Town of Cobourg Wastewater Treatment Plant #2 must be completed Monday to Thursday between the hours of 7:00 a.m. to 4:30 p.m. and Friday between the hours of 7:00 a.m. and 11:00 a.m. It shall be the Contractor's responsibility to

Contact the Town of Cobourg Staff below to coordinate time, method and specific location for material disposal:

Mr. Darryl Ashe Assistant Manager Environmental Services

Corporation of the Town of Cobourg 55 King Street West Cobourg, ON K9A 2M2

Cell: 905-376-0925

Alternative Contact:

Town of Cobourg Waste Water Treatment Plant #2

Tel: 905-372-5539

The Contractor shall install a screen in the downstream maintenance hole in order to catch and dispose of solid debris. If maintenance holes are found to be filled with excess material following construction, the Contractor shall clean these out at no extra cost to the Town.

Before disposing of solids, the Contractor shall decant all liquids into the Town's designated sanitary sewer main located beside the drying bed at the Town of Cobourg Wastewater Treatment Plant #2 or location as directed by Town staff coordinating the material disposal. After decanting all liquids from materials for disposal, the Contractor shall discharge remaining solids into the drying bed at the Town of Cobourg Wastewater Treatment Plant #2 or location as directed by Town staff coordinating the material disposal.

There shall not be any dumping or decanting into any storm sewers. Disposing or dumping of solids or slurries into any sewer main is not permitted. The Contractor shall decant liquid only into sanitary or combined sewers greater than 250mm in diameter clear of debris and with low flow. Filtering devices shall be used during the decanting process to prevent any debris from entering the sewer system. Prior to decanting, the Contractor shall verify the type of flow in the sewer. Should a blockage occur in the sanitary sewer due to decanting, the cost of all sewer backups and cleaning shall be at no extra cost to the Town.

19. Occupational Health and Safety Act 2013 – Designated Substances

In accordance with the requirements of Part III 30.(1) of the Occupational Health and Safety Act, the Owner has determined that the designated substances as listed are present on the site and within the limits of this Contract.

Designated Substance	Identified on this Site	Location
Acrylonitrile	Not Tested	
Arsenic	Not Tested	
Asbestos	Yes	Sanitary Sewers
Benzene	Not Tested	

Designated Substance	Identified on this Site	Location
Coke Oven Emissions	Not Tested	
Ethylene Oxide	Not Tested	
Isocynates	Not Tested	
Lead	Not Tested	
Mercury	Not Tested	
Silica	Not Tested	
Vinyl Chloride	Not Tested	

It is the responsibility of the Contractor to ensure that all Subcontractors performing work under this Contract have received a copy of this specification, where Designated Substances are identified as being present at the site of the work.

The Contractor shall comply with the governing Ministry of Labour Regulations respecting protection of workers, removal, handling and disposition of the Designated Substances encountered on this Contract.

Prior to commencement of this work, the Contractor shall provide written notification to the Ministry of the Environment at 7 Overlea Boulevard, Toronto, Ontario M4H 1AB, of the location(s) proposed for disposal of Designated Substances. A copy of the notification shall be provided to the Contract Administrator a minimum of two (2) weeks in advance of work starting.

In the event that the Ministry of the Environment has concerns with any proposed disposal location, further notification shall be provided until the Ministry of the Environment's concerns have been addressed.

All costs associated with the removal and disposition of Designated Substances herein identified, shall be deemed to be included in the appropriate tender Items.

Should a Designated Substance not herein identified be encountered in the work, then management of such substance shall be treated as Extra Work.

The requirements of Section GC 4.03 of the General Conditions of the Contract shall apply.

20. Health and Safety Policy

The Tenderer shall submit, prior to award of the Contract, a copy of their Health and Safety Policy.

21. Workplace Hazardous Material Information System (WHMIS)

Section GC 4.03.06 is deleted and replaced with the following:

Prior to the commencement of work the Contractor shall provide, to the Contract Administrator, a list of those products controlled under WHMIS which it expects to use on this Contract. Related Material Safety Data Sheets shall accompany the submission. All containers used in the application of products controlled under WHMIS shall be labelled.

The Contractor shall notify the Contract Administrator of changes to the list in writing and provide the relevant Material Safety Data Sheets.

22. Spills Reporting

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall forthwith be reported to the Contract Administrator. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act R.S.O. 1990.

All spills or discharges of liquid, other than accumulated rain water, from luminaires, internally illuminated signs, lamps, and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Contract Administrator.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

23. Environmental Protection Plan and Protection of Water Quality

If, in the opinion of the Contract Administrator or Approving Authorities the Contractor is not fulfilling the conditions and requirements of the Environmental Protection Plan as described herein, the Contract Administrator or Approving Agency has the right to stop the Contractor's operation and/or work, at any time, until the deficiency or default has been resolved to their satisfaction. Compensation to the Contractor for any delays incurred as a result of this stoppage of work will not be considered.

Equipment and Operation

The Contractor shall control equipment and operations to limit disruption to any watercourse and surrounding areas to the greatest extent possible. Control measures shall include, but not be limited to, the following requirements:

- Equipment shall arrive at the site sufficiently clean such that the Contract Administrator may confirm that no invasive species or noxious weeds are transported onto the site by equipment.
- Equipment shall arrive on site in good repair and shall be regularly inspected and maintained by the Contractor throughout the duration of the contract to ensure that it remains free of fluid leaks.
- Equipment shall not work in watercourses where the Contract Documentation and Drawings do not indicate work to be completed within the watercourse. Under no circumstances shall equipment be permitted to travel in the active watercourse.

- Where Contract Documentation and Drawings indicate work to be completed within or adjacent to the active watercourse, operations shall be kept to a minimum and be completed in an organized and efficient manner such that the overall duration is minimized. These "in-water" operations will only be permitted between July 1st and September 15th.
- Restoration of disturbed areas shall be completed immediately following the disturbance of an area regardless of whether it is vegetation, hard surfaces, watercourse surfaces or embankment surfaces.
- Storage, maintenance and cleaning of equipment shall be performed a minimum of 30 meters away from the active watercourse and above the high-water mark.
- Storage of fuel tanks and refueling operations shall be performed a minimum of 30 meters away from the active watercourse and above the high-water mark. All fuel tanks shall be sound, leak free and where necessary certified by the required authority.
- Bio hazardous, Poisonous, Corrosive and/or Toxic Materials shall be stored a minimum of 30 meters away from the active watercourse and above the high-water mark. Regulated materials shall be handled and used in accordance with applicable regulations. Quantities of these materials on site at any time shall be the minimum deemed required to carry out this Contract.
- A procedure for interception, clean-up, proper disposal and reporting of spills shall be in place prior to the commencement of the work and subject to the approval of the Contract Administrator and other Approving Authorities (i.e. MOE, Conservation Authority, DFO, MNR). Materials and equipment to facilitate spill clean-up shall be readily available and appropriately stored on-site prior to the commencement of work. All spills shall be reported to the Contract Administrator immediately.

No "in-water work" is anticipated for this project however, these control measures still apply. A minimum distance of 30 meters from all sewer inlets will be required for cleaning, maintenance, fueling, storage, etc. as stated above.

24. Garbage Collection and Mail Delivery

The Contractor will be responsible for ensuring that garbage collection, including recyclables, is maintained and, when necessary, the Contractor shall make arrangements directly with the collecting agency to permit and coordinate pick-up.

The Contractor shall ensure that Canada Post employees have daily access to properties for mail delivery services at all times.

25. Asphalt Mix Designs

The Contractor shall be responsible for the provision of current mix designs for all hot mix asphalt required for the work, or for having the necessary mix designs prepared by a certified laboratory. The mix designs proposed for use by the

Contractor shall be submitted in writing to the Contract Administrator for his approval and no work shall commence until the design mixes are approved.

All costs associated with the provision of approved mix designs shall be borne by the Contractor.

Steel slag and blast furnace slag coarse and fine aggregates shall not be used in any hot mix required by this Contract.

Any requests by the Contractor for adjustment to previously approved mix designs shall be requested by the Contractor within 24 hours of the commencement of asphalt placement. After which period, no adjustments will be considered by the Contract Administrator.

26. Preparation and Posting of Requirements for Work in Confined Spaces

Clause GC 7.01.04 of the OPS General Conditions of Contract is amended by the addition of the following:

Detailed written procedures addressing the confined space requirements of the Occupational Health and Safety Act and Ontario Regulations for Construction Projects, Ontario Regulation 213/91, shall be clearly posted at the project site and available to all personnel, including the Contractor's workers, Owner staff, Contract Administrator, and Ministry of Labour inspectors.

The procedures must include the rescue procedures to be followed during a rescue or evacuation of all personnel from an unsafe condition or in the event of personal injury.

The Contractor shall have personnel trained in rescue procedures readily available on site.

27. Confined Space Entry

Without relieving the Contractor of his responsibilities under the Occupational Health and Safety Act the Contractor shall be responsible for the supply of personal protective equipment for the use of the Contract Administrator, in connection with confined space entry while the Contractor is operating on site.

The following equipment shall be made available on request:

- Mechanical Ventilation Equipment
- Gloves
- Gas Detector (C95-80)
- Full body harness securely attached to a rope
- Rope
- Gas mask or dust, mist or fume respirator (optional)
- 30-minute self-contained breathing apparatus (need not be worn but, if required, be readily available to supply air for instant egress)

- 7-minute Escape Pack
- Explosion-proof temporary lighting
- Adequate clothing to ensure protection against abrasions and contamination.

In addition, the Contractor shall provide a competent person who shall inspect all safety equipment prior to use to ensure that it is in good working order and appropriate for the task at hand.

28. Entry onto Private Property

The Contractor shall not enter private property or property which is to be acquired to construct the works without the prior consent of the Contract Administrator. This requirement will be strictly enforced.

29. Notification to Public

Prior to commencement of any work on the Contract, the Contractor shall deliver a written Construction Notice or Construction Update to all residents/businesses who will be impacted a minimum of two (2) weeks prior to any work commencing. The notice/update shall be prepared in Town of Cobourg format and shall be reviewed and accepted by the Contract Administrator prior to distribution. The Construction Notice shall contain, at minimum:

- Project Start Date
- Anticipated Project Completion Date
- Anticipated Service Disruption Date Specific to Street
- Statement "For those specific properties anticipated to be affected, an additional notice will be provided a minimum of three (3) days prior to the date of service disruption."
- Daytime and after-hours emergency contact telephone numbers.

For any work that will result in service disruptions to property owners, Service Disruption Notices are to be prepared on the Contractor's letterhead and shall clearly indicate:

- Start date and time.
- Anticipated end date and time.
- Daytime and after-hours emergency contact telephone numbers.
- instructions to limit sewer use, including the use of any mechanical devices (for example sump or ejector pumps), from discharging to the sewer service in a manner that may adversely affect the rehabilitation (lining) process.
- Location of temporary alternate washroom facilities available for use, if required (i.e. service disruption will last longer than two (2) hours).

The Service Disruption Notices shall be distributed a minimum of three (3) days in advance of the work.

The telephone numbers shall be either local area code or toll-free numbers and the person carrying the emergency phone line shall be able to mobilize resources to site within one (1) hour if required.

The Contractor shall make reasonable efforts to contact the property owner(s) to make such notification including, at minimum, three (3) attempts including directly at the property and by telephone. The Contractor shall keep a log record of all attempts. When, after reasonable attempts, the Contractor remains unable to contact the property owner or when contact has been made and the property owner does not wish to cooperate, the Contractor shall advise the Contract Administrator and wait for instruction.

In the event that the Contractor is unable to perform work on the date stated in the Service Disruption Notice, the Contractor must immediately provide written notification of the change of date including the new date of installation to all affected parties. After work affecting property owners has been completed the Contractor shall provide written notification of completion to all affected parties.

In all cases, no work will be allowed to commence without such notices. Any Contractor's written notices shall be submitted to the Contract Administrator for review and acceptance a minimum of 72 hours (3 working days) prior to delivery of the notices.

30. Weather Conditions

The Contractor shall review the Environment Canada weather forecast prior to commencement of lining operations. Where the weather conditions such as rain or snow are anticipated, sewer flows may exceed the Contractor's bypass pumping capacity. The Contractor shall be aware that the installed plugs can surcharge upstream sewer during such weather conditions and may cause potential basement flooding.

It shall be the Contractor's responsibility to ensure that flow control measures put in place for completion of works as described in this Contract are sufficient to handle fluctuations in flow quantities that may result from wet weather conditions. Any damages resulting from the Contractor's inability to properly manage sewer flows shall be repaired at the Contractor's own expense.

Regardless of the scheduling of liner installations or the Contractor's decision on carrying out a liner installation, the Contract Administrator, at its sole discretion, has the right to direct the Contractor to delay a liner installation at no extra cost to the Town, when, in the Contract Administrator's opinion, there exists a reasonable risk that a detrimental rain or snow melt event will occur which could cause unacceptable surcharge in the sewer.

31. Odour Control

For the installation of CIPP Liners, when the sewer has service connections, the Contractor shall provide notice to the affected residents indicating possible odour

resulting from sewer lining and curing process. The notice shall indicate to the residents the reason for odour, what to expect, procedures to alleviate odour including ensuring all plumbing drain traps are full of water. The Contractor's onsite supervisor must have with them at all times a "calibrated styrene monitor" to be used when residents complain about styrene or a chemical smell is detected.

The Contractor shall provide twenty-four (24) hours a day seven (7) days a week contact on the notice and is responsible to respond, investigate and act immediately on any odour complaint that may occur including after work hours and weekends. Actions to be taken by the Contractor to alleviate an odour problem within a property shall include:

- Seeking permission to enter the property;
- Diagnosing the cause of odour and remedial actions;
- Requesting the resident to ventilate the property via open window and doors;
- Providing fans and blowers to maintain negative pressure in the sewer and also ventilating the property with fans/blowers; and
- Other actions that are useful in alleviating the odour problem.

The Contractor shall provide adequate sewer ventilation and odour mitigation during the sewer lining process. This shall include all necessary exhaust ventilation of sewers being lined to alleviate odour.

The Contractor shall install two exhaust fans with minimum capacity of 990 l/s each to exhaust air from the sewer upstream and downstream of the sewer section being lined. The air leaving the fan shall be treated with activated carbon monoxide and must not be vented without this treatment. In the event that odour control becomes a problem, the Contractor shall provide additional exhaust ventilation of the sewer to alleviate odour. Cost of exhaust fans and odour control shall be included with lining cost for that section and no separate payment will be considered to provide odour control.

32. Storage Areas

Clause GC 7.03 of the General Conditions of Contract is amended by the addition of the following:

The use of the road right-of-way as a long-term storage area is not allowed under this Contract. The storage of materials and movement of equipment will only be allowed for normally accepted construction practices.

33. General Liability Insurance

The Corporation of the Town of Cobourg and CIMA Canada Inc. shall be named as additional insured's with limits of not less than Five Million Dollars (\$5,000,000) per occurrence. (See Clause GC 6.03.02.01).

34. Construction Act

The Contractor shall give the Owner notice in writing, immediately, of all lien claims or potential lien claims coming to the knowledge of the Contractor or his agents.

When a claim for lien is filed by a Subcontractor, labour or material supplier or equipment renter acting under the Contractor, and proceedings are commenced by the Owner to vacate the lien, the Contractor agrees and shall forthwith pay to the Owner, in addition to their reasonable legal fees therefore, all interest costs and expenses incurred by the Owner and an additional sum equal to ten percent (10%) of the sum found to be owing as liquidated damages, and such remedy shall be in addition to any other remedy available to the Owner under the Contract Documents.

Where any lien claimant asks from the Owner the production for inspection of the Contract Documents or the state of the accounts between the Owner and the Contractor, the Contractor shall be liable for an administration fee of Two Hundred Dollars (\$200.00) for each request made as compensation for the preparation of such accounting or for the preparation of the Contract, or both, as the case may be, and the Contractor acknowledges that such administrative fee shall be properly deductible, if the Owner should so choose, from monies otherwise payable to the Contractor under the terms of the Contract Documents.

Where an application is brought to a judge of a competent jurisdiction to compel production of any particular document to a lien claimant, the Contractor further agrees to indemnify the Owner from reasonable legal fees incurred in appearing on such an application and in addition agrees to pay to the Owner its reasonable costs incurred in producing such documents to the extent that the same is made necessary under the disposition of the matter by such judge, and the Contractor further agrees that such reasonable costs and fees incurred by the Owner as stated herein may be properly deductible from monies otherwise payable to the Contractor under the terms of the Contract Documents.

35. Construction Noise

Contractors are advised that construction operations shall be undertaken recognizing the restrictions imposed by Town of Cobourg By-law Number 011-2011 that can be viewed at https://cobourg.civicweb.net/filepro/documents. Contractors attention is drawn to Clause 3.1 at the aforementioned website regarding maximum allowable sound levels over a twenty-four (24) hour period.

Any approved night, weekend, or holiday work will require the Contractor to submit a request for an amendment to the Town of Cobourg By-law Number 011-2011 that can be viewed at https://cobourg.civicweb.net/filepro/documents. If the Contractor makes a request for night, weekend or holiday work, request for amendment to the by-law shall include a list of locations where night, weekend, or holiday work will be required as well as the length of time that impact will last. Any request for amendment shall be made by the Contractor a minimum of 60 days prior to commencing work. Any delays/costs incurred as a result of the requirement to obtain the noise by-law amendment will not be considered.

36. Variations in Tender Quantities

Clause GC 8.01.02.01 (b) of the General Conditions of Contract is amended as follows:

The last sentence beginning "Alternatively" and ending "paid" is deleted and replaced by "The Owner shall not be liable to the Company for loss of anticipated profit".

The Contractor is advised that tender quantities may vary dependent on sewer conditions encountered in the field. If quantities vary by more than 15% on any items included within this Contract, no payment will be considered for loss of profit.

37. Property Claims During Construction

The Contractor shall be the primary contact for claims made by homeowners and other property owners within the project limits during construction processes. The Contractor shall inform the Contract Administrator of said claims, immediately upon receipt. The Contractor shall inform the Owner, in writing, their intentions with regard to resolution of said claim within twenty-four (24) hours of receipt.

If it is deemed by the Owner that the Contractor is not adequately providing and/or retaining the services to resolve a claim by homeowners within the project limits during construction, the Owner may elect to holdback sufficient funds to resolve the claim. All claims, negotiations, and/or mediation completed under this Contract, including Arbitration, shall be completed in Accordance with Clauses and Sub-clauses of GC 3.13 and 3.14 of the General Conditions of Contract.

The application of this Clause shall not make the Owner or Contract Administrator liable in any way for subsequent performance, and in no way relieves the Contractor from his continuing responsibilities in accordance with this Contract.

38. Access to Site

The Contractor shall be responsible for the restoration of all existing roads, fencing, guide rails, and landscaping to pre-construction conditions or better. Any damage to trees or other property caused by the Contractor's site access shall be corrected at no extra cost to the Town.

Equipment and Material shall be stored in designated areas. Notwithstanding the foregoing, the Contractor shall at no extra cost to the Town, remove any equipment or material which, in the Contract Administrator's opinion, constitutes a hazard to traffic or pedestrians.

The Contractor shall obtain the Contract Administrator's prior approval for the location of any construction access points. The Contract Administrator reserves the right to alter, reject or close same, as necessary. The Contractor shall provide suppliers Equipment and Material with the location and proper use of the access points.

The Contractor is advised that no construction equipment or vehicles shall be permitted on any adjacent lands unless the Contractor has obtained written permission from the applicable property owners. All areas used by the Contractor

for access or storage shall be restored to their original condition at no extra cost to the Town.

39. Construction Staging

The Contractor shall provide a construction schedule detailing all major activities, including sequence of activities.

Underground and surface improvements shall be completed in an organized and sequential methodology, to accommodate adjacent homeowners' entrances, and travel to/from adjacent streets. The methodology is to be approved by the Contract Administrator, prior to the commencement of any work.

The number of open excavations for open-cut repair must not exceed three (3) within any public right-of-way at any given time. The Contractor is responsible for ensuring that all restoration works are complete to a condition in which traffic is able to safely travel over the rehabilitated location prior to excavating for a fourth open-cut repair.

Consideration shall be given to the provision of maintenance of sanitary sewer flows, at all times as part of this staging schedule. The cost of all overtime, weekend work, night work, and holiday work where permitted shall be included in the appropriate bid prices.

Any excavation left open and unattended, for any duration, shall be securely enclosed in temporary construction fencing or an approved equivalent barrier to traffic and pedestrians.

40. Access to Private Property During Construction

The Contractor is reminded that access to private properties, buildings, driveways, lanes must be provided at all times. The Contractor is advised that every attempt must be made to provide access to private properties. During the evening and weekend periods, traffic is to be permitted on the roadway, using appropriate signage if a detour is not in place. Therefore, the Contractor will be required to schedule work and construct temporary works as necessary to ensure this requirement is met. All costs anticipated for compliance with this Clause shall be included in the Tendered Price.

41. Quality Control

The Contractor shall be responsible for all quality control sampling and testing of all supplied material. The Contractor shall prepare and submit a Quality Control Plan no later than seven (7) days prior to the commencement of work. The results of any tests performed shall be submitted within three (3) days after completion of the specific test being performed to the Contract Administrator.

42. Submittal Requirements

The Contractor shall submit to the Contract Administrator, in accordance with a procedure to be stipulated by the Contract Administrator, submittals including, but not limited to, shop drawings, samples, plans, and schedules as specified in the

Standard Specifications. The Contractor shall not proceed with the work affected by the submittal until the submittal has been reviewed or approved by the Contract Administrator.

The Contractor shall review the submittals prior to submission to the Contract Administrator to ensure that all necessary requirements of the submittal are met and that no errors or omissions have been made. The Contractor shall check and initial all submittals before submission to the Contract Administrator. The review by the Contract Administrator does not relieve the Contractor of this responsibility. Should there be deviations in the submittal, the Contractor shall note this on the submittal.

Unless noted otherwise, the Contractor shall submit three (3) copies of each submittal and shall maintain one (1) copy during the review. Should a revision be required, the Contractor shall submit the same copies as with the original submission. The Contractor shall allow for fifteen (15) working days for the Contract Administrator's review of each submission.

The review does not release the Contractor of the responsibility for the proper installation and performance of any material or equipment nor from the liability to replace should some of it prove defective or deficient. Submittals marked "Amend and Re-submit" must be amended and re-submitted within five (5) working days for review prior to proceeding or ordering to proceed. No order will be given for such work and such work will not proceed unless drawings have been returned marked either "No Comment" or "As Noted". Submittals marked as "As Noted" shall only proceed with the changes as noted. Should the review period be extended for any reason, no delay claim will be entertained.

All submittals shall have all units in metric. Each submittal shall have a cover-page providing the following information: Contractor name, Contractor's contact title, date submitted, specifications or drawing referenced, location where equipment is to be installed, name of subcontractor or supplier. Upon approval, the Contractor shall not deviate from the approved submittal without written authorization from the Contract Administrator.

Submittals to be provided (in accordance with Clauses, OPS, and timelines as stated throughout this Contract) include, but are not limited to:

- Notifications to Public
- Temporary Sewer By-Pass Plan
- Odour Control Plan
- Construction Staging Plan
- 24-hour Emergency Contact List
- Material Quality Control Plan
- Method and Materials for Sewer Reaming
- Method and Materials for Cutting/Grinding Protruding Services

- Method and Materials for Filling of Voids
- CIPP Liner Design
- CIPP Lining Plan
- CIPP Lining Testing and Commissioning Plan
- CIPP Liner Quality Assurance and Control Records
- Asphalt Mix
- Pre-Construction CCTV Inspection Report
- Post-Cleaning CCTV Inspection Report
- Post-Rehabilitation CCTV Inspection Report

The Contractor shall plan work accordingly to ensure that the review does not hinder the schedule. Failure to submit required submittals shall result in the Contract Administrator stopping the work until the required submittals have been reviewed. The Contractor may not claim for any delay or cost that is the result of this stoppage of work.

43. Materials from Designated Sources

The following materials shall be provided by the Contractor only from manufacturers and suppliers on the current Ministry of Transportation, Ontario "Manual of Designated Sources for Materials" or equivalent as approved by the Contract Administrator.

- Epoxy resin;
- Grout, non-shrink;
- Admixtures for concrete;
- Waterproofing.

It shall be the Contractor's responsibility to modify materials as required to suit site conditions at the time of installation. This may include, but not be limited to; lowering freezing temperature; adding root inhibitors; adding fillers; etc.

Material handling shall be performed in a manner as to minimize any hazard to personnel and in accordance with manufacturer's recommendations. It is the responsibility of the Contractor to provide appropriate protective measures to ensure that chemicals are handled only by trained and authorized personnel. All equipment used for install shall be as recommended by the manufacturer and only personnel familiar with all aspects of the material and meeting the qualifications shall be allowed to handle and install the products.

Materials Delivery and Storage

The Contractor shall provide adequate facilities for storage of raw materials and for preparation of all the materials for installation. They shall conform to the manufacturer's recommendations and all applicable codes, regulations, and safety

requirements. These facilities shall be approved by the Contract Administrator prior to installation of rehabilitation products and shall be provided by the Contractor at not additional cost. Materials stored will not be paid for.

Materials Testing

Materials used by the Contractor are subject to material testing at the discretion of the Contract Administrator and paid for by the Owner. The Contract Administrator may sample materials as they deem necessary for quality assurance and compliance purposes. Should any of the materials used by the Contractor fail to meet standard requirements the Contract Administrator and Owner have the right to reject the work. The Contractor shall perform works as necessary to remedy the defect as directed by the Contract Administrator.

44. CCTV Inspection

All CCTV inspections shall be performed in accordance with OPSS.MUNI 409 and NASSCO PACP and LACP standards unless specified otherwise within this Contract. All CCTV inspection shall be performed by CCTV personnel who are trained and certified in the use of NASSCO's Assessment and Certification Programs (PACP/LACP).

For record purposes, All maintenance hole identification numbers shall be in accordance with numbering as per the Contract Documents and site map provided.

All inspection reports shall include the date and time at which the CCTV inspection was completed as well as a title that indicates what the purpose of the inspection was, either Preliminary, Post Preparation, or Post Rehabilitation Inspection.

The Contractor shall make all video and inspection report submissions on a USB portable hard-drive of reliable quality. Hard drives will become the property of Town and will not be returned to the Contractor.

All hard drives shall be properly labelled with the following information:

- a) Owner's name
- b) Contract number or project number
- c) Maintenance hole identifier
- d) Town
- e) Street name
- f) Inspection date
- g) Contractor's name

45. Night, Weekend and Holiday Work

Should the Contractor anticipate night, weekend, or holiday work be required to complete project work in accordance with the Contract Documents and installation of materials in accordance with manufacturer's specifications, the Contractor shall notify and receive approval from the Contract Administrator or Owner prior to

initiating the work. Any approved night, weekend, or holiday work will require the Contractor to submit a request for an amendment to the Town of Cobourg Noise By-Law in accordance with Special Provision General Clause 35.

Except in the case of an emergency, no work shall be undertaken at night, on Sundays or on holidays without the consent in writing of the Owner. The Contractor shall, as far as possible, refrain from work on days which are legal holidays in the Town of Cobourg.

46. End-of-Warranty Inspection

At the end of the warranty period as specified under GC 7.16 of OPSS.MUNI 100 General Conditions of Contract, an end-of-warranty inspection shall be conducted to confirm that the completed work has not become defective during the twenty-four (24) month maintenance holdback period per Special Provision General Clause 9.

Work shall be performed in accordance with and paid under Item No. A6 as contained within the standard specifications section of this Contract.

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Special Provisions Items

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program

Contract No. Co-21-05 PWD

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Part A - Sanitary Sewer Rehabilitation

Flush, Clean and CCTV Sewer - Item No. A1

Reference: OPSS 411, OPSS.MUNI 409

The unit price bid for this item shall be compensation in full for the supply of all labour, equipment, and materials required to properly flush, clean, and CCTV inspect to the extent as may be required sanitary sewer pipeline segments as specified within the Contract Documents.

The Contractor shall employ only such preliminary cleaning methods necessary to obtain a CCTV Inspection sufficient to record the initial condition of each sewer segment to be rehabilitated including a count and condition of service connections. Cleaning works shall be performed in accordance with OPSS 411. All debris removed from the cleaning works shall be collected at the pipe segment's downstream maintenance hole and disposed of in accordance with Clause 18 of the Special Provisions General Section of this Contract.

The Contractor shall employ methods and schedule works as necessary to ensure that sewer flows are maintained below the 5 to 7 o'clock position during inspection.

The CCTV inspection and submittals shall be completed in accordance with OPSS.MUNI 409, current NASSCO standards for Pipeline assessment (PACP) and Special Provisions General Clause 44.

CCTV inspection shall be completed using a camera capable of side launch. Should the Contractor encounter a service that appears to have some evidence of infiltration during inspection of the mainline sewer, the Contractor shall camera the service to locate the source of infiltration. The Contractor shall submit the service CCTV inspection video to the Contract Administrator for review within seven (7) days of completion. The Contractor will be compensated for the additional CCTV inspection under Provisional Item A10 as contained within this Contract should the Contract Administrator deem the service inspection warranted. Repair works, as required, to stop infiltration will be paid under the appropriate provisional items.

The Contractor shall submit the mainline CCTV Inspection video and reports to the Contract Administrator for review within seven (7) days of inspection completion. Should the Contract Administrator review the CCTV inspection video and determine that rehabilitation works are not required for the inspected sewer segment, the Contractor will be notified and the Contractor's efforts to complete the Preliminary CCTV Inspection shall be paid under the appropriate Flush, Clean, CCTV Provisional Items contained within this Contract.

Measurement for payment shall be per meter of sanitary sewer flushed, cleaned and CCTV inspected measured over the centerline of the pipe from inside wall of upstream maintenance hole to inside wall of downstream maintenance hole.

Installation of Cured-In-Place Pipe (CIPP) Lining System (End-to-End) – Item No. A2

Reference: OPSS.MUNI 460, OPSS 411, OPSS.MUNI 409

Tender quantities were estimated based on CCTV inspection video captured by the Town of Cobourg in 2019. It shall be noted that sewers were flushed and cleaned prior to CCTV inspection completed by the Town in 2019. Still images of typical defects requiring rehabilitation under this Contract are included in Typical Defects section of the Contract documents.

The unit price bid for this item shall be compensation in full for the supply of all labour, equipment, and materials to perform the following:

- Cleaning as specified below.
- Maintenance Hole (MH) to MH CIPP Lining as specified below.
- Post Preparation and Post Rehabilitation CCTV as specified below.
- All other work as specified below.

For the unit price bid, the Contractor shall complete Cured-In-Place Pipe Lining in accordance with OPSS.MUNI 460.

OPSS.MUNI 460.04.01 Design Requirements part a) is amended in that the CIPP design shall assume that the pipe has not lost any structural integrity.

The Contractor shall be responsible for control of all odours that may occur as a result of the relining operation in accordance with Clause 31 (Odour Control) under the Special Provisions General section of this Contract. The Contractor shall submit, for approval by the Contract Administrator, a method of odour control. Costs associated with the control of odour as a result of relining shall be included in the unit price bid for this Item.

When interruption of sanitary sewer flows is necessary to properly conduct the works as described within this specification, acceptable methods of flow control shall be provided. Flow control is required for the complete duration of the liner installation operation including insertion, curing, cool-down, liner end cutting and up until the lined sewer run is fully open for upstream flow. Flow control shall be for 100% of the upstream flow that would otherwise enter the section(s) being lined for the period when the liner is blocking the sewer. Where bypass pumping is required it should be performed in accordance with the Temporary By-Pass Pumping specification contained within the Contract Documents and paid under Item A5.

OPSS.MUNI 460 is amended by the following:

Clause 460.07.01 "General", is amended in that it shall be the Contractor's responsibility to notify all property occupants seven (7) days in advance of work being performed and of any service disruption they may experience (nature, duration, expected date) as a result of the work to be performed. Notification shall be provided in accordance with Clause 29 (Notification to Public) in the Special Provisions General section of this Contract. In all cases, no work will be allowed to commence without the proper provision of such notices. The Contractor shall submit to the Contract Administrator any written notices for review and acceptance a minimum of 72 hours (3 working days) prior to delivery.

In Clause 460.07.09 "Preparation of an Existing Pipeline", add the following:

- (i) Protruding service connections shall be cut back sufficiently to preclude damage from reaming operations.
- (ii) Cut back protruding service connections shall be smooth and even with no jagged edges and the extent of the protrusion left in place must not interfere with the installation or long-term performance of the CIPP liner.
- (iii) If the service lateral piping or service connection is damaged or broken by the Contractor during cut back or liner installation, then the Contractor shall repair the damage by using excavation as necessary at no added cost to the Town. The Contractor shall submit for review and acceptance by the Contract Administrator prior to commencement of work, the proposed method of repair and reinstatement for damaged drain piping or service connections.

In Clause 460.07.11 "Cured-In-Place Pipe Lining Installation", add the following:

- (i) The liner and its resin should be protected during the installation into the sewer. No significant amount of resin shall be lost by contact with maintenance hole walls or the sewer pipe during the installation. The liner should not be contaminated or diluted by exposure to dirt, debris, or water during the pull.
- (ii) Lining shall not commence until the Contract Administrator has reviewed and accepted the cleaning and preparation work.

In Clause 460.07.17 "Service Connections and Lateral Reinstatements", add the following:

- (i) All service connections shall be reopened to their full diameter and the interface with the liner made leak tight by remote means.
- (ii) Following any installation that covers a live service connection the Contractor must open each service connection within eight (8) hours after curing and cooling.

- (iii) The Contractor shall record the time at which the reinstatement of each service connection is completed and submit the record to the CCTV operators and Contract Administrator for verification during the post relining CCTV Inspection.
- (iv) If the Contractor fails to reinstate a live service connection, any damage caused by failure to reinstate shall be the responsibility of the Contractor including any/all costs related to the damage.

Preliminary CCTV

All pipes requiring rehabilitation under this item shall be flushed, cleaned, and CCTV inspected from upstream maintenance hole to downstream maintenance hole in accordance with the Item A1 – Flush, Clean and CCTV Sewer item contained within this Contract.

Preparation

Prior to relining, the sewer section shall be cleaned to remove all debris encrustations, root balls, and other foreign materials. The Contractor shall determine and propose the appropriate methods required to effectively clean the sewer for CCTV inspection and relining for approval by the Contract Administrator. Works shall be performed in accordance with OPSS 411. All debris/material removed from the sewer segment shall be collected at the pipe segment's downstream maintenance hole and disposed of in accordance with Clause 18 of the Special Provisions General Section of this Contract.

If excessive debris is encountered in the sewers and additional cleaning is required, the Contractor shall be compensated for the additional work under the Provisional Item A8 for Mechanical Cleaning for Excessive Debris. Payment for this additional cleaning shall only apply for pre-construction activities and will only be made when the Contract Administrator has reviewed and approved the extra works.

If necessary, the sewer section shall be reamed to remove deposits and protrusions. The Contractor shall be responsible for submitting a detailed procedure outlining the process and materials to be used for reaming of the sewer segment to the Contract Administrator for approval. An acceptable CCTV camera must monitor reaming operations. All protrusions, deposits, previous liner wrinkles, build-ups and other foreign material in the sewer section shall be removed such that the internal diameter of the sewer pipe is not reduced more than 7 mm. Any material remaining after reaming must be hard and firmly attached to the sewer wall. All sharp encrustations and debris shall be removed, as they can damage the liner during installation.

The Contractor shall plan and execute the reaming operation to prevent damage to the sewer section and any service connections in the sewer section. Proper precautions shall be taken by the Contractor to ensure that the reaming operation does not cut into the

sewer itself, to ensure that the reaming tools do not become jammed in the sewer and that any areas of the sewer that are structurally unsound are not further damaged. Any extraction of reaming tools or other equipment, including extraction by excavation, is the responsibility of the Contractor and shall be performed at no additional cost to the Town.

Where the retrieval of lodged or stuck equipment is required by an open-cut excavation, the Contractor shall immediately advise and discuss risk to sewer operation and retrieval with the Contract Administrator and Town of Cobourg staff. The area excavated shall be restored to original condition or better at no cost to the Town.

The Contractor shall take all necessary precautions to ensure that no flooding of public or private property occurs during any phase of the cleaning and reaming operations.

In the event that the Contractor identifies additional defects within the pipe segment after preparation for rehabilitation, not specified for repair within the Contract Documents, the Contract Administrator shall be notified. The Contractor shall review the defect(s) with the Contract Administrator who may direct that the rehabilitation of defect(s) be performed. Payment for and performance of additional works shall be in accordance with the appropriate Provisional Items contained within this Contract. If no Provisional Item exists, a reasonable price shall be negotiated between the Contractor and Contract Administrator with the Town of Cobourg's approval.

The unit price bid shall include for the cutting and/or grinding of protruding service connections as required prior to reaming of the sewer with any type of reaming device that may damage the service connection. The Contractor shall be responsible for submitting a detailed procedure outlining the process and materials to be used for cutting and grinding of protruding services to the Contract Administrator for approval.

The unit price bid shall include for the supply of all labour, equipment, and materials, required to seal all locations with active infiltration within the sewer section to be lined by injection grouting, completed prior to the installation of the CIPP liner and to the satisfaction of the Contract Administrator. The Contractor shall be responsible for submitting a detailed procedure outlining the process and materials to be used for sealing of active infiltration to the Contract Administrator for approval a minimum of seven (7) working days prior to work being performed.

All costs associated with the requirements of filling of voids shall be included in the unit price for this Item. The Contractor shall be responsible for submitting a detailed procedure outlining the process and materials to be used for filling of voids as necessary for proper installation of the CIPP liner to the Contract Administrator for approval a minimum of seven (7) working days prior to work being performed.

The Contractor shall ensure that all maintenance holes used for insertion of liners are adequate in size as not to impact the required finished liner quality. Where the Contractor identifies a maintenance hole opening size to be inadequate, the maintenance hole shall be modified appropriately. The unit price bid shall include for the costs and work associated with restoring the existing structures or any other aspect of the existing sewer system to their preconstruction conditions following completion of the lining works. All work associated with this requirement shall be indicated in the Contractor's plans and method statements and are subject to approval by the Contract Administrator. Where necessary, the Contractor should select means, methods, and materials which limit the need for major modifications to existing structures or any other aspect of the existing sewer system.

Repair of Capped Service

If the Contractor encounters services capped at the mainline that appear to be infiltrating in the process of preparing the segment for relining, the Contractor shall immediately inform the Contract Administrator. The Contract Administrator may direct the Contractor to repair the infiltrating capped service to be paid under and completed in accordance with Item A11 contained within this Contract.

Measuring Inside Diameter of the Sanitary Sewer

The Contractor shall measure the internal diameters of the sewer sections to be lined and the length of the sections to be lined. The Contractor must not rely on dimensions provided within the Contract Documents. The Contractor shall log all field measurement verification and provide this record log to the Contract Administrator prior to installation of the associated liners.

The measurements taken shall be used to determine proper sizing of the liners to be installed and to ensure each liner will provide the required tight fit to the inside surface of the sanitary sewer. The final installed liner shall leave no gap or annular space between the liner and the sanitary sewer at any location around the perimeter of the sewer along the full lined length.

Where the measurements indicate that the proposed liner will not assure 100% tight fit over the full range of the diameters measured, the proposed liner shall not be installed, and a different sizing of liner shall be used that will assure the 100% tight fit. Should the Contractor order or install a liner without confirmed field conditions and such conditions are found to have required a different sizing, the liner shall not be installed and/or no payment shall be made for the liner.

Where the range of measurements is such that no liner sizing will assure a 100% tight fit, the Contractor shall advise the Contract Administrator of this finding within 48 hours. No

lining shall take place until this situation has been resolved to the satisfaction of both the Contract Administrator and the Contractor. Where no resolution is possible due to the measured range, the sewer shall not be lined.

Post Preparation CCTV

Post preparation CCTV inspection shall be completed in accordance with OPSS.MUNI 409, current NASSCO standards for Pipeline assessment (PACP) and Special Provisions General Clause 44.

The Contractor shall submit the CCTV inspection video and reports to the Contract Administrator for approval at least five (5) business days prior to lining for review and acceptance of the cleaning and preparation. The Contractor shall build this review duration into their schedule.

At their discretion, the Contract Administrator may waive the requirement for the CCTV inspection video to be submitted for acceptance five (5) business days prior to lining, such as when approval for lining was provided by the Contract Administrator at a live viewing of the inspection. However, in such cases the CCTV inspection video and report shall still be submitted to the Contract Administrator prior to the liner installation. The Contractor shall inform the Contract Administrator of their intention to perform live CCTV inspection five (5) business days prior to the inspection to allow for advance planning.

Lining shall not commence until the Contract Administrator has reviewed and accepted the cleaning and preparation work. In the event that a deficiency in the cleaning and preparation work is identified that requires correction, the Contractor shall conduct additional cleaning and preparation works as necessary and repeat the video inspection once works have been completed. All repeated CCTV inspections required due to deficiencies in the work shall be performed at no additional cost to the Town.

CIPP Lining – Resin Impregnation

The liner shall be uniformly impregnated with the correct quantity of resin to produce a cured result that has homogeneous and uniform physical properties throughout the liner wall that meet or exceed the required physical properties provided in the liner design as submitted to the Contract Administrator for approval fourteen (14) days prior to installation in accordance with OPSS.MUNI 460.04.02. The correct quantity of resin shall be determined by the Contractor and shall be in accordance with the specifications of the liner manufacturer. The liner shall be provided with sufficient resin to affect the required bonding to the inside surface of the existing sewer including around the service connections.

If the liner is impregnated at the factory or Contractor's off-site wet-out facility, the liner shall be stored until the liner installation at the temperature as per manufacturer's

recommendation and a temperature log during storage and transportation must be provided to the Contract Administrator prior to the installation. It is the responsibility of the Contractor to ensure the liner is stored and transported in a climate-controlled environment as per the resin manufacturer's recommendation. The Contractor shall not install any impregnated liner that has expired, been stored in a warehouse for more than one (1) month or has been compromised in any way. The Contract Administrator may reject the liner and cancel installation if the storage and transportation conditions are compromised.

The Contract Administrator shall have the right to inspect the Contractor's off-site or onsite wet-out facility at any time during the wet-out of a liner tube for this Contract. As part of such inspection and if requested by the Contract Administrator, the Contractor shall weigh a sample of dry felt and a corresponding sample of wet-out felt from any liner being wet-out for this Contract. Where the results of this sampling do not verify that sufficient resin was placed in the liner, the Contract Administrator will not accept the liner and it shall not be used for the work.

Installation of CIPP Liner

Prior to installation of end-to-end liners all identified service junction (service connection) repairs within the pipe run shall be completed. Service connection repairs shall be completed in accordance with Sanitary Sewer Spot Repair by Cured-In-Place Pipe (CIPP) Lining System – Item A3 specification contained within this Contract and paid under the same item. In locations where service connections and mainline cured-in-place pipe repairs overlap one another, the service connection quantity shall take precedence. The Contractor will not be paid twice for the overlapping quantity of CIPP liner.

Installation and curing of the Cured-in-Place Pipe Lining System shall be completed in accordance with OPSS.MUNI 460.07.11 and OPSS.MUNI 460.07.12 respectively.

Post CIPP Lining

The liner shall be free of any interior bulges, ribs, ripples, or other irregularities except where these irregularities correspond with irregularities in the existing sewer after cleaning and preparation in accordance with the specifications herein.

Where folds, ridges, ripples and wrinkles are a direct result of obtaining the required tight fit, they shall be acceptable providing that the liner installed was correctly and properly sized for the existing sewer based on the inside diameter measurements made as required in the specifications herein. Where such folds, ridges, ripples and wrinkles are due to improper or incorrect sizing of the liner, they shall not be acceptable.

Where lining work necessitated or resulted in damage to the maintenance hole or the maintenance hole benching, the Contractor shall be responsible for restoring it to equal

or better than original condition at no additional cost to the Town. The Contractor shall propose a method of restoration and materials for approval by the Contract Administrator prior to performing repair works.

If required, curing water shall be discharged to the next downstream run of sanitary sewer. The Contractor shall not discharge the curing water to a storm sewer or directly to a watercourse/waterbody or to ditches and other channels leading to a watercourse or waterbody as it is considered contaminated and not suitable for the water course. All discharged water shall meet the requirements of the discharge location being utilized.

CIPP Lining Termination Requirements

Liner terminations shall be smooth, square, and neatly cut. There shall be no separation from the inside surface of the existing sewer at the termination.

Where a liner has been placed continuously through a maintenance hole, the upper portion of the liner shall be cut out over the full length within the maintenance hole from the existing sewer pipe entrance to exit so that the top edges of the remaining liner are level with the existing maintenance hole benching. Where the existing benching does not fit tightly to the portion of the liner left in place, any gaps or misfits shall be filled with a suitable concrete patching compound. The liner ends at the maintenance hole walls, above the location where the liner is cut out, shall be trimmed as close as practical to the maintenance hole walls considering any thermal contraction to occur, along with common industry practice, to allow a slight outward flare on the liner ends. The space behind the liner flare and the sewer pipe or the maintenance hole wall shall be sealed with epoxy and/or resin material. The liner may expand and contract at a different rate than the sewer pipe and hence the seal should be made considering differential expansion/contraction.

Where a liner is not placed continuously through a maintenance hole, the liner ends shall be trimmed as close as practical to the maintenance hole walls considering any thermal contraction to occur, along with common industry practice, to allow a slight outwards flare on the liner ends. The maintenance hole trough shall be adjusted such that a smooth and uniform flow path at liner interface with the maintenance hole is maintained. If a liner is placed at the upstream and downstream of a maintenance hole, and does not continuously extend through the maintenance hole, the trough shall be adjusted to provide a smooth and uniform flow path between both liner ends.

Material for adjusting the maintenance hole trough shall be Speedcrete, 20 MPa, or an approved equivalent product. Submission of cut sheets for a request made for other product must be approved a minimum of 2 weeks prior to use.

Post Rehabilitation CCTV

The Contractor shall conduct a CCTV Inspection of the completed rehabilitation including reinstatement of service connections and maintenance hole benching in accordance with OPSS.MUNI 409, current NASSCO standards for Pipeline assessment (PACP) and Special Provisions General Clause 44. The Contract Administrator will review the inspection video as part of the approval for payment process for the lined sewer.

In the event that after the completed rehab CCTV Inspection is performed a deficiency in the lined sewer section is identified by the Contract Administrator that requires repair or remediation, the Contractor shall perform the necessary repairs or remedial action and repeat the CCTV Inspection at no additional cost to the Town.

Payment

Measurement for payment shall be in linear meters measured horizontally over the centerline of the pipe from inside wall of upstream maintenance hole to inside wall of downstream maintenance hole. A list of anticipated pipeline segment lengths has been included in Table 1: Sanitary Sewer Repairs. Payment shall be compensation for all works regardless of material.

Payment shall be as follows:

- 5% after field verification of dimensions, cleaning, and after receiving acceptable post-cleaning CCTV with the report;
- 10% after installing odour control system;
- 50% after installing and curing of liner inclusive of actual pressure curve, actual temperature curves showing compliance with anticipated curves;
- 10% after reinstating, receiving service statement report and acceptable postrehabilitation CCTV inspection with report;
- 10% after testing and reconciliation;
- 15% after addressing deficiencies and acceptance of the liner.

In locations where service connections and mainline cured-in-place pipe repairs overlap one another, the service connection quantity shall take precedence. The Contractor will not be paid twice for the overlapping quantity of CIPP liner.

The Contractor shall note that tender quantities are subject to change pending the results of preliminary CCTV inspections.

Sanitary Sewer Spot Repair by Cured-In-Place Pipe (CIPP) Lining System – Item No. A3

Reference: OPSS 460, OPSS 411, OPSS.MUNI 409

For the unit price bid, the Contractor shall complete rehabilitation under this Item in accordance with the specification for Installation of CIPP Lining Systems (Item A1) contained within the Contract Documents for mainline and "Full Wrap" CIPP lateral lining (T-lining) including, preparation of sewer, preliminary, post preparation and post rehabilitation CCTV, and installation of CIPP lining.

OPSS.MUNI 460.04.01 Design Requirements part a) is amended in that the CIPP design shall assume that the pipe has not lost any structural integrity.

Prior to preparing the spot repair for rehabilitation, the Contractor shall flush, clean and CCTV the sewer segment(s) with identified spot repair(s) from maintenance hole to maintenance hole in accordance with and paid under Item A1 – Flush, Clean and CCTV Sewer.

The unit price bid shall include for the completion of post-preparation CCTV inspection and post-rehabilitation CCTV inspection in accordance with OPSS.MUNI 409, current NAASCO standards for pipeline assessment (PACP) and Special Provisions General Clause 44.

Spot Repair Location

The locations for CIPP spot repairs provided within this Contract are approximate. The Contractor shall determine the proper specific location for the placement of the spot repair including the start and end points so that the sewer defect is enclosed within the length of the spot repair and meets the **requirement for the spot repair to extend 1m beyond the defect at each end**. The 1m extension beyond the defect at each end has been accounted for in rehabilitation quantities.

Cleaning

At the location of the CIPP spot repair, over the length of the final position of the CIPP spot repair and at least 1.5 m past each end of the CIPP spot repair, the sewer shall be cleaned to remove foreign materials prior to CIPP liner installation. Cleaning shall be in accordance with OPSS 411. All debris removed from the cleaning works shall be collected at the pipe segment's downstream maintenance hole and disposed of in accordance with Clause 18 of the Special Provisions General Section of this Contract. Precautions shall be taken to ensure that no flooding of public or private property occurs during any phase of the cleaning or reaming operations or both. The Contractor shall take all necessary

precautions to protect the sewer lines from damage that might be inflicted by the use of cleaning equipment.

Repair of Capped Service

If the Contractor encounters services capped at the mainline that appear to be infiltrating in the process of preparing the segment for relining, the Contractor shall immediately inform the Contract Administrator. The Contract Administrator may direct the Contractor to repair the infiltrating capped service to be paid under and completed in accordance with Item A11 contained within this Contract.

CIPP Lining Installation

The Town believes that the sewer sections where CIPP spot repairs are to be installed are in an interior condition that will allow passage by the Contractor's equipment from a maintenance hole to the location(s) of the repair(s). However, there may be sewer sections with interior conditions that prevent reasonable passage of the Contractor's equipment to the CIPP spot repair location(s). Where this is the case, the Contractor shall proceed as follows.

- 1) The Contract Administrator may request the Contractor to provide an estimated time and cost to adequately clean, if possible, the sewer section to allow passage of the Contractor's CIPP spot repair equipment. The Contractor shall provide a cost estimate based on applicable Contract Price. With the approval of the Contract Administrator, the Contractor shall clean the sewer section and shall be paid for this Work under the applicable Contract Price. After cleaning of the sewer section, the Contractor shall proceed with the CIPP spot repair installation(s).
- 2) The Contract Administrator may request that the Contractor complete the rehabilitation of the sewer segment by open-cut method. Rehabilitation of the sewer by open-cut method shall be performed in accordance with and paid under provisional item A11 contained within this Contract. The Contract Administrator and/or Owner reserves the right to modify tender quantities as necessary to accommodate any changes to work resultant of preliminary inspections.
- 3) Alternatively, the Town may cancel the CIPP spot repair installations in the sewer section, in which case, the Contractor will be paid for the initial CCTV inspection according to the Flush, Clean and CCTV Sewer Provisional Item as written in this Contract, paid for under Item A1.

Payment

Payment shall be as follows:

- 10% after field verification of dimensions, cleaning, and after receiving acceptable post-cleaning CCTV with the report;
- 5% after installing odour control system;
- 50% after installing and curing of liner inclusive of actual pressure curve, actual temperature curves showing compliance with anticipated curves;
- 10% after reinstating, receiving service statement report and acceptable postrehabilitation CCTV inspection with report;
- 10% after testing and reconciliation;
- 15% after addressing deficiencies and acceptance of the liner.

a) Mainline

Measurement for payment shall be in linear meters of sewer lined, measured horizontally over the centerline of the pipe.

The unit price bid shall be compensation in full for the supply of all labour, equipment, and materials required to properly execute the CIPP lining of segments, regardless of material, including all CCTV inspection, as specified within the Contract Documents.

b) Service Connection

Measurement for payment shall be each sanitary service repaired by "Full Wrap" CIPP lateral lining (T-lining).

The unit price bid shall be compensation in full for the supply of all labour, equipment, and materials required to properly execute the rehabilitation, regardless of material, as specified within the Contract Documents. Payment shall include for a minimum of 0.3 m service relining and a minimum of 0.45m full-wrap CIPP lining of the mainline pipe at the location of the service connection.

Portable Washroom Facilities (Residents Only) – Item No. A4

Under this Item and for the unit price bid, the Contractor shall provide temporary washroom facilities to the public during rehabilitation causing service interruption lasting more than two (2) hours. These facilities shall not be used by any of the Contractor's crew members.

The supply of portable washroom facilities shall be in accordance with Ontario Regulation 213/91 Section 29, 29.1, and 29.2 accessed here:

https://www.ontario.ca/laws/regulation/910213? ga=2.119465353.1042418175.159785 4757-1356941525.1586984875#BK10 .

For this Contract under this Item any reference to 'workers' shall be interpreted to mean residents of dwellings affected.

Portable washroom facilities at minimum shall be of the 'Flush with Sink' type. One (1) facility should be provided for every four (4) or less residences that will experience service interruption lasting more than two (2) hours including at minimum, one (1) facility 'Accessible' type.

Accessible type washrooms shall be AODA compliant, located in an area that allows for a barrier-free path of travel, and be equipped with, at minimum:

- Grab bars;
- Clear turning space of minimum 1500mm diameter;
- Automatic flush, door open/close/lock controls, and soap dispensers mounted 0.9-1.2m above the floor;
- Toilet paper dispenser mounted below the grab bar;

For each facility provided, the Contractor shall also supply a handwash station that is compliant with the most current AODA standards.

If at any point in time the Contractor is made to complete work under this Contract at night, when the facilities will not be lit with natural light, the Contractor must coordinate to have lighting for each facility onsite installed to the satisfaction of the Contract Administrator and/or the Owner at no additional cost to the Town.

The facilities shall be kept in a clean condition, emptied regularly, and stocked with paper products, soap, and water daily. A sign on handwashing hygiene/guidelines in English shall be posted inside each facility provided in accordance with Ontario Public Health Guidelines, at minimum, that can be viewed here:

https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/hand-hygiene

The Contractor shall ensure that a record of cleaning in English is also posted inside each facility. The Contractor shall coordinate to have the facilities sanitized thoroughly after each singular use and the cost to do so shall be considered included for payment under this item.

It shall be the Contractor's responsibility to coordinate relocations of portable washroom facilities as required to ensure a distance of 180m from the facility to any inconvenienced residence (i.e. those experiencing service interruption) is not exceeded.

The unit price bid shall include for all costs associated with providing public washroom facilities including, maintenance and cleaning, and the restoration of facility locations upon removal. No separate payment will be made for any additional expense to the Contractor as a result of complying with the requirements and carrying out the work as described above.

Measurement for payment shall be Lump Sum (LS) inclusive of all work required to supply, maintain, and remove portable washroom facilities, provide access to washroom for impacted residents, setup any necessary pedestrian or traffic delineation at washroom locations and restore disturbed areas as needed.

Payment for work in the 2021 contract year shall be made in accordance with approved pricing as submitted during the 2020 tender period (December 2020). Should the Owner choose to award the Contractor work for subsequent Phases, the Contract Administrator may request the price for Portable Washroom Facilities be adjusted to reflect the anticipated requirements for Contract work in the corresponding project year.

Temporary By-Pass Pumping - Item No. A5

The unit price bid for this Item shall include for the supply of all labour, equipment, and materials required to safely and effectively by-pass pump existing sewer system/service flows to facilitate the completion of all works as described in this Contract. Under this Item the Contractor shall be responsible for the supply of all components necessary for a fully functional sewer by-pass system.

Measurement for payment shall be Lump Sum (LS). All costs associated with controlling and managing sewer flows shall be included in the Lump Sum cost item for temporary bypass pumping and shall include but not be limited to submittals, installations, testing, operation, and removals. No separate payment shall be made for complying with these requirements.

It shall be the Contractor's responsibility to satisfy themselves of flow rates through visual inspection expected to be encountered during completion of work under this Contract. The Contractor can anticipate flow volumes to be consistent with those typical for residential areas. No claims regarding extra work for the purposes of by-passing sewer flows will be entertained by the Owner. When pricing this item the Contractor shall pay certain attention to repairs B3a and B3b (as identified on the included site map) which are located in close proximity to the Brook Road Sewer Pumping Station and collects flows from a significant portion of the Brook Road Sanitary Drainage Area.

The Contractor shall be responsible for preparing and submitting to the Contract Administrator for approval, a temporary sewer by-pass plan to maintain sewage depths and flows at a level sufficient to allow for rehabilitation works to be performed in accordance with the requirements of this Contract without adverse upstream impacts. The Contractor shall also be responsible for submitting a spill prevention and response plan to the Contract Administrator for approval.

No water from the temporary by-pass pipes and pumps upon removal of the system shall be discharged to or contaminate storm sewers, ditches, watercourses or waterbodies. All such water shall be discharged to a sanitary sewer.

During the completion of works as described in this Contract, should sewage backup occur as a result, the damages caused will be rectified at the Contractor's own expense. All external costs or impact costs related to the sewer backup shall also be at the Contractor's own expense.

Payment for work in the 2021 contract year shall be made in accordance with approved pricing as submitted during the 2020 tender period (December 2020). Should the Owner choose to award the Contractor work for subsequent Phases, the Contract Administrator may request the price for Temporary By-Pass Pumping be adjusted to reflect the anticipated requirements for Contract work in the corresponding project year.

End-of-Warranty Inspection - Item No. A6

Reference: OPSS 411, OPSS.MUNI 409

The unit price bid for this item shall be compensation in full for the supply of all labour, equipment, and materials required to properly flush, clean, and CCTV inspect sanitary sewer pipeline segments repaired under this Contract at the end of the twenty-four (24) month period of maintenance.

Any defective work identified during the end-of-warranty inspection resultant of Contractor error shall be repaired by the Contractor at the Contractor's own expense as required under Special Provisions General Clause 4 for Guaranteed Maintenance.

Cleaning works shall be performed in accordance with OPSS 411. All debris removed from the cleaning works shall be collected at the pipe segment's downstream maintenance hole and disposed of in accordance with Clause 18 of the Special Provisions General Section of this Contract.

The Contractor shall employ methods and schedule works as necessary to ensure that sewer flows are maintained below the 5 to 7 o'clock position during inspection.

The CCTV inspection and submittals shall be completed in accordance with OPSS.MUNI 409, current NASSCO standards for Pipeline assessment (PACP) and Special Provisions General Clause 44.

Measurement for payment shall be per meter of sanitary sewer flushed, cleaned and CCTV inspected.

Spot Repair of Sanitary Sewer by Open-Cut Method (Provisional) – Item No. A7

Reference: OPSS.MUNI 409, OPSS.MUNI 410, OPSS 310, OPSS.MUNI 401, OPSS.MUNI 510, OPSS 1820, OPSS 1841, OPSS.MUNI 1010, OPSD 802.010, OPSD 802.030, OPSD 802.031, OPSD 802.033; RMDCS 01350

The unit price bid shall be compensation in full for the supply of all labour, equipment, and materials required to excavate, replace, and restore existing sanitary sewer segments in locations as specified in repair table, Table 1: Sanitary Sewer Repairs. This includes the saw cutting, removal and disposal of existing asphalt and concrete, excavation and removal and disposal of excess materials off site, shoring and support of excavations, removal and disposal of existing piping, installation of new piping, bedding, backfill and compaction, and all associated restoration works. Where bypass pumping is required it should be performed in accordance with the Temporary By-Pass Pumping specification contained within the Contract Documents and paid under Item A5.

The unit price bid shall also include for the completion of preliminary CCTV inspection and post-rehabilitation CCTV inspection in accordance with OPSS.MUNI 409, current NAASCO standards for pipeline assessment (PACP) and Special Provisions General Clause 44. The unit price bid for this item shall include for the supply of all labour, equipment, and materials required to properly flush, clean, and CCTV inspect, to the extent as may be required, sanitary sewer pipeline segments as specified within the Contract Documents.

The Contractor shall submit the preliminary CCTV Inspection video and reports to the Contract Administrator for review within seven (7) days of inspection completion. Should the Contract Administrator review the CCTV inspection video and determine that rehabilitation works are not required for the inspected sewer segment, the Contractor will be notified and the Contractor's efforts to complete the Preliminary CCTV Inspection shall be paid under the appropriate Flush, Clean, CCTV Provisional Items contained within this Contract.

All open-cut sewer pipe shall be installed as per OPSS.MUNI 410. It is not anticipated that removal of asbestos-cement pipe would be required in work completed under this Contract, however if required, the Contractor shall comply with the governing Ministry of Labour Regulations respecting protection of workers, removal, handling and disposition

of any Designated Substances encountered in carrying out the work. The Contractor shall reference RMDCS Section 01350 – Special Procedures for requirements for working with asbestos-cement pipe. Pipe material for those requiring rehabilitation is provided in Table 1: Sanitary Sewer Repairs.

The Contractor shall take care when working next to utilities and traffic and take all necessary precautions to ensure that activities undertaken will not impact such utilities and traffic. This may include but is not limited to, the use of additional sheathing and shoring during sewer installation. The Contractor shall note and take into consideration that trenching work may take place in and adjacent to existing utility trenches and traffic. Any temporary support of existing underground utilities or roadway embankments is to be included in the tendered price with no additional compensation being given to the Contractor. The Contractor is to make arrangements with the affected utility and traffic management plan prior to construction.

This item shall include for the use of vacuum excavation, as required.

No additional payment shall be made for dewatering.

Materials and Installation

Subject to approval by the Contract Administrator, native material shall be used as backfill in accordance with OPSS.MUNI 401. In the event that native material is found to be unsuitable, the Contractor shall supply and place imported Select Subgrade Material (SSM) in accordance with OPSS 1010 and OPSS.MUNI 401 paid under Provisional Item B10.

Should the trench bottom following excavation to grade for sanitary sewer construction be deemed unsuitable by the Contract Administrator, clear stone shall be used in place of Granular 'A' bedding material and be paid under Provisional Item A16. The bedding material must be completely wrapped in non-woven geotextile filter fabric and shall be compatible with the existing soil conditions.

Sewer Pipe Replacement

Prior to undertaking any open-cut repair work, proposed connections to PVC and concrete sewer shall be approved by the Contract Administrator.

PVC Sewer

New PVC sewer shall be installed as per OPSD 802.010 using Granular 'A' to OPSS 1010 specifications for embedment material. All bedding shall be compacted prior to installation of the sewer. All PVC sanitary sewer shall be DR35, conform to OPSS 1841, and be green in colour. All PVC services shall be SDR 28 and shall match existing diameter of service being replaced.

Concrete Sewer

New concrete sewer shall be installed as per OPSD 802.030, OPSD 802.031, and OPSD 802.033 Class B Bedding using Granular 'A' to OPSS 1010 specifications for both compacted bedding and cover material. All bedding shall be compacted prior to the installation of the sewer. All sewer pipe provided shall conform to OPSS 1820.

Spot Repair Location

The Contractor shall determine and propose to the Contract Administrator for approval, the proper specific location for the repair including the start and end points so that the sewer defect is completely removed and the repair can be facilitated properly. The spot repair shall extend a minimum of 1m beyond the defect on either end, unless otherwise directed and/or approved by the Contract Administrator, to ensure the defect is fully removed and repaired.

Asphalt Restoration

Asphalt surfaces shall be restored with a minimum of 300mm Granular 'B', 150mm Granular 'A', 50mm HL-8, and 40mm HL-3 road makeup, unless otherwise directed by the Contract Administrator.

The unit price bid for this Item shall include for the supply of all labour, equipment, and material required to properly execute paving work in accordance with OPSS.MUNI 310. Asphalt cement supplied shall be PGAC 58-28 as a minimum.

The Marshall Stability for H.L.-3 and H.L.-8 shall be a minimum of 8,900 and 8,000 respectively.

The requirements of OPSS.MUNI 310 respecting a surface course trial area and the use of automatic screed controls are not applicable to this Contract.

Soft Scape Restoration

The unit price bid for this Item shall also include any soft scaping work required to restore disturbed areas after rehabilitation including, but not limited to:

- Sod restoration;
- · Reinstatement of lawn features, if required;
- Curb/sidewalk reinstatement.

Restoration shall be completed to original condition or better and completed to the satisfaction of the Contract Administrator in accordance with all relevant Town of Cobourg Standards and OPSS.

CCTV of Completed Rehabilitation

The unit price bid for this item shall include payment for the post rehabilitation CCTV Inspection of the repaired sewer section, once in service and restored to original condition, performed in accordance with OPSS.MUNI 409, current NASSCO standards for Pipeline assessment (PACP) and Special Provisions General Clause 44. For completed service connection relining, the Contractor shall inspect at minimum the first 2 m of the service lateral to effectively show the completed repair. The CCTV Inspection shall be submitted to the Contract Administrator for review as part of the approval for payment process for the rehabilitated sewer.

All CCTV inspection shall be performed by CCTV personnel who are trained and certified in the use of NASSCO's Pipeline Assessment and Certification Program (PACP).

In the event that after the post rehabilitation CCTV Inspection is performed a deficiency in the replaced sewer section is identified that requires repair or remediation, the Contractor shall perform the necessary repairs or remedial action and repeat the CCTV Inspection at no additional cost to the Town.

Payment

Payment shall include the saw cutting, removal and disposal of existing asphalt and concrete, excavation and removal and disposal of excess materials off site, shoring and support of excavations, removal and disposal of existing piping, installation of new piping, bedding, backfill and compaction, CCTV inspection, and all associated restoration works.

a) Mainline

Measurement for payment shall be linear meters measured horizontally over the centerline of the pipe. Sewers will be paid for on a unit price basis per linear meter of sewer constructed.

a) Service Connection

Measurement for payment shall be each. Payment shall be compensation in full for the supply of all labour, equipment, and materials required to excavate, replace, and restore 1m of sanitary service, service connection, and 1m of mainline sewer on either side of the service at minimum, at locations as specified in Table 1: Sanitary Sewer Repairs.

Mechanical Cleaning for Excessive Debris (Provisional) – Item No. A8

Reference: OPSS.MUNI 460

Should excessive debris be encountered in the sewers and additional cleaning be required to prepare the pipe segment for correct application/performance of recommended repair methods, subject to verification by the Contract Administrator, the Contractor shall be compensated for the additional works required to remove the debris under this Item.

The Contractor shall be responsible for determining and proposing a method of debris removal to the Contract Administrator for approval.

The Contractor shall take all necessary precautions to ensure that, the cleaning operation does not cut into the sewer itself, equipment does not become jammed in the sewer, and any areas of the sewer that are structurally unsound are not further damaged. Any extraction of reaming tools or other equipment, including extraction by excavation, is the responsibility of the Contractor and shall be performed at no additional cost to the Town.

Where the retrieval of lodged or stuck equipment is required by an open-cut excavation, the Contractor shall immediately advise and discuss risk to sewer operation and retrieval with the Contract Administrator and Town of Cobourg staff. The area excavated shall be restored to original condition or better at no cost to the Town.

Precautions shall be taken to ensure that no flooding of public or private property occurs during any phase of the cleaning operations.

The unit price bid shall include for the supply of all labour, equipment, and materials required to remove excess debris. Payment for this additional cleaning shall only apply for pre-construction activities.

Measurement for payment shall be linear meter(s) measured horizontally over the centerline of the pipe.

Service Trimming (Provisional) – Item No. A9

Reference: OPSS.MUNI 460

The unit price bid for this item shall include any cutting and/or grinding of protruding service connections (and associated works) encountered in preliminary inspections where not included for elsewhere in this Contract and deemed necessary by the Contract Administrator and/or Owner. The Contractor shall be responsible for submitting a detailed procedure outlining the process and materials to be used for cutting and grinding of protruding services to the Contract Administrator for approval.

Measurement for payment shall be each (ea.) protruding service trimmed as approved and directed by the Contract Administrator.

Flush, Clean, and CCTV Sanitary Service Lateral (Provisional) – Item No. A10

Reference: OPSS.MUNI 409

The unit price bid for this item shall be compensation in full for the supply of all labour, equipment, and materials required to properly flush, clean, and CCTV to the extent as may be required sanitary sewer pipeline segments as specified within the Contract Documents.

CCTV inspection shall be performed in accordance with OPSS.MUNI 409 and Special Provisions General Clause 44. The Contractor shall submit the lateral CCTV Inspection video and reports to the Contract Administrator for review within seven (7) days of inspection completion. Should the Contract Administrator review the CCTV inspection video and determine that rehabilitation works are not required for the inspected sewer segment, the Contractor will be notified.

The Contractor shall employ only such preliminary cleaning that is necessary to obtain a CCTV Inspection sufficient to record the initial condition of the sanitary lateral. Cleaning works shall be performed in accordance with OPSS 411. All debris removed from the cleaning works shall be collected at the pipe segment's downstream maintenance hole and disposed of in accordance with Clause 18 of the Special Provisions General Section of this Contract.

Infiltrating laterals confirmed to be inactive, shall be plugged / capped and abandoned. All work related to abandoning inactive laterals shall be paid for under provisional Item A10 and performed in accordance with the corresponding specification.

Sewer laterals that are found to be infiltrating and cannot be rehabilitated via trenchless methods shall be repaired by open-cut method. Work shall be paid under provisional item A11 and performed in accordance with the corresponding specification.

Measurement for payment shall be per meter of sanitary lateral flushed and inspected. The Contractor shall note that this item is Provisional and will only be paid when the Contract Administrator deems the service lateral inspection to be warranted. Should the Contractor investigate services for which there is no evidence of active infiltration at the location of connection to mainline sewer, as determined by the Contract Administrator, the Contract Administrator reserves the right to withhold payment.

In the event that a homeowner requests inspection and/or repair of their private service in addition to inspection and/or repair already being completed on Town property, the Contractor shall notify the Contract Administrator and/or Owner. If the Contractor chooses to proceed with the additional work, coordination and payment of the work shall be between the homeowner and the Contractor. Any work completed on private property will be held to the same standard as work completed for the Town (in accordance with this

Contract) and will be inspected by the Town and/or their Consultant on behalf of the homeowner. Preliminary inspections shall be completed in accordance with the requirements of Item A10. Rehabilitation work shall be completed in accordance with Item A11 or Item A12.

Sanitary Service Repair by Open-Cut Method (Provisional) – Item No. A11

Reference: OPSS.MUNI 409, OPSS.MUNI 410, OPSS 310, OPSS.MUNI 401, OPSS.MUNI 510, OPSS 1820, OPSS 1841, OPSS.MUNI 1010, OPSD 802.010, OPSD 802.030, OPSD 802.031, OPSD 802.033

The unit price bid shall be compensation in full for the supply of all labour, equipment, and materials required to excavate, replace, and restore existing sanitary sewer lateral segments in locations as directed by the Contract Administrator. This includes the saw cutting and removal and disposal of existing asphalt and concrete as required, excavation and removal and disposal of excess materials off site, shoring and support of excavations, removal and disposal of existing piping, installation of new piping, bedding, backfill and compaction, and all associated restoration works.

Any infiltrating service that is required to be excavated and capped / plugged will be paid under this item. This would include for the costs associated with excavation, removal of existing sewer segment, install of concrete plugs (20 MPa, minimum length of 300mm) or air tight caps on any open ends of the sewer lateral, removal and disposal of excess materials offsite, shoring and support of excavations, backfill and compaction, and all associated restoration works.

The unit price shall include for connections to existing sanitary sewers as required and removal and disposal of any existing, abandoned pipes encountered during removal and replacement of the sewer lateral.

The unit price bid shall include for removal and disposal of asbestos-cement pipe in accordance with Occupational Health and Safety Act, Regulations of the Ministry of Labour, and the Ministry of the Environment as required.

The Contractor shall take care when working next to adjacent utilities and traffic and take all necessary precautions to ensure that activities undertaken will not impact such utilities and traffic. This may include but is not limited to, the use of additional sheathing and shoring during sewer installation. The Contractor shall note and take into consideration that trenching work may take place in and adjacent to existing utility trenches and traffic. Any temporary support of existing underground utilities or roadway embankments is to be included in the tendered price with no additional compensation being given to the Contractor. The Contractor is to make arrangements with the affected utility and traffic management plan prior to construction.

This item shall include for the use of vacuum excavation, as required.

No additional payment shall be made for dewatering.

Materials and Installation

Subject to approval by the Contract Administrator, native material shall be used as backfill in accordance with OPSS.MUNI 401. In the event that native material is found to be unsuitable, the Contractor shall supply and place imported Select Subgrade Material (SSM) in accordance with OPSS 1010 and OPSS.MUNI 401 paid under Item A15.

Should the trench bottom following excavation to grade for sanitary sewer construction be deemed unsuitable by the Contract Administrator, clear stone shall be used in place of Granular 'A' bedding material and be paid under Item A16. The bedding material must be completely wrapped in a non-woven geotextile filter fabric and shall be compatible with the existing soil conditions.

Sweep bends are the only acceptable type of bends for risers, clean outs or any other application requiring a change in alignment.

All open-cut sewer pipe shall be installed as per OPSS.MUNI 410.

Sewer Pipe Replacement

Prior to undertaking any open-cut repair work, proposed connections to PVC and concrete sewer shall be approved by the Contract Administrator.

PVC Sewer

New PVC sewer shall be installed as per OPSD 802.010 using Granular 'A' to OPSS 1010 specifications for embedment material. All bedding shall be compacted prior to installation of the sewer. All PVC services shall be SDR 28, green in colour and shall match existing diameter of service being replaced.

Asphalt Restoration

Asphalt surfaces shall be restored with a minimum of 300mm Granular 'B', 150mm Granular 'A', 50mm HL-8, and 40mm HL-3 road makeup, unless otherwise directed by the Contract Administrator.

The unit price bid for this Item shall include for the supply of all labour, equipment, and material required to properly execute paving work in accordance with OPSS.MUNI 310. Asphalt cement supplied shall be PGAC 58-28 as a minimum.

The Marshall Stability for H.L.-3 and H.L.-8 shall be a minimum of 8,900 and 8,000 respectively.

The requirements of OPSS.MUNI 310 respecting a surface course trial area and the use of automatic screed controls are not applicable to this Contract.

Soft Scape Restoration

The unit price bid for this Item shall also include any soft scaping work required to restore disturbed areas after rehabilitation including, but not limited to:

- Sod restoration;
- Reinstatement of lawn features, if required;
- Curb/sidewalk reinstatement.

Restoration shall be completed to original condition or better and completed to the satisfaction of the Contract Administrator in accordance with all relevant Town of Cobourg Standards and OPSS.

CCTV of Completed Rehabilitation

The unit price bid for this item shall include payment for the post rehabilitation CCTV Inspection of the repaired sanitary lateral, once in service and restored to original condition, performed in accordance with OPSS.MUNI 409, current NAASCO standard for Pipeline Assessment (LACP), and Special Provisions General Clause 44. The CCTV Inspection shall be submitted to the Contract Administrator for review as part of the approval for payment process for the rehabilitated lateral.

In the event that after the post rehabilitation CCTV Inspection is performed a deficiency in the replaced sewer section is identified that requires repair or remediation, the Contractor shall perform the necessary repairs or remedial action and repeat the CCTV Inspection at no additional cost to the Town.

Payment

Measurement for payment shall be per meter of sewer lateral replaced and or removed and capped / plugged measured from mainline to property line anticipated to be a maximum length of 10m.

Deflection testing as per OPSS.MUNI 410.07.16.05 may be required for all flexible pipe installations.

In the event that a homeowner requests inspection and/or repair of their private service in addition to inspection and/or repair already being completed on Town property, the Contractor shall notify the Contract Administrator and/or Owner. If the Contractor chooses to proceed with the additional work, coordination and payment of the work shall be between the homeowner and the Contractor. Any work completed on private property will be held to the same standard as work completed for the Town (in accordance with this

Contract) and will be inspected by the Town and/or their Consultant on behalf of the homeowner. Preliminary inspections shall be completed in accordance with the requirements of Item A10. Rehabilitation work shall be completed in accordance with Item A11 or Item A12.

Sanitary Service Repair by Cured-in-Place-Pipe (CIPP) Lining System (Provisional) – Item No. A12

For the unit price bid, the Contractor shall complete rehabilitation of the existing service lateral by the CIPP lining method in accordance with OPSS.MUNI 460, including post preparation and post rehabilitation CCTVs. All costs associated with reinstating sewer connections in the CIPP pipe lining shall be included and paid for under this item. The Contractor shall ensure proper sealing of the connection into the mainline as required as well as the lateral against infiltration and root intrusion.

Flow control is required for the complete duration of the actual liner installation operation including insertion, curing, cool-down, liner end cutting and up until the lined sewer run is fully open for upstream flow. Flow control shall be for 100% of the upstream flow that would otherwise enter the section(s) being lined for the period when the liner is blocking the sewer. Should sewage backup into the associated building, all damage caused will be rectified at the Contractor's own expense.

The Contractor shall be responsible for notifying residents of the building which the lateral services a minimum of three (3) days prior to beginning the work, in accordance with Clause 29 of the Special Provisions General section of this Contract.

It shall be the Contractor's responsibility to coordinate with the resident to limit sewage flows for the complete duration of the liner installation operation. Should sewage backup occur as a result of the Contractor's operations, the damages caused will be rectified at the Contractor's own expense. All external costs or impact costs related to the sewer backup shall also be at the Contractor's own expense.

The Contractor shall be responsible for control of all odours that may occur as a result of the relining operation in accordance with Clause 31 (Odour Control) under the Special Provisions General section of this Contract. The Contractor shall submit, for approval by the Contract Administrator, a method of odour control. Costs associated with the control of odour as a result of relining shall be included in the unit price bid for this Item.

The Contractor shall be responsible for clearing all debris from active laterals, including any site specific repairs required for this work.

Preparation of the service lateral for relining shall be completed in accordance with the preparation section of the Installation of Cured-in-Place-Pipe (CIPP) Lining System Special Provision Item A2 within this Contract.

Installation of the CIPP Lining System shall be performed in accordance with the Installation of Cured-in-Place-Pipe Lining Systems Special Provision Item A2 contained within this Contract and OPSS.MUNI 460.

It is anticipated that any lateral identified for rehabilitation will be accessible from an existing maintenance hole. If it is determined that the work cannot be completed by accessing the service from within the mainline sewer, the Contractor shall notify the Contract Administrator and other arrangements may be made.

Measurement for payment shall be per meter of sewer lateral rehabilitated by CIPP liner installation up to a maximum sewer lateral repair length of 10m.

In the event that a homeowner requests inspection and/or repair of their private service in addition to inspection and/or repair already being completed on Town property, the Contractor shall notify the Contract Administrator and/or Owner. If the Contractor chooses to proceed with the additional work, coordination and payment of the work shall be between the homeowner and the Contractor. Any work completed on private property will be held to the same standard as work completed for the Town (in accordance with this Contract) and will be inspected by the Town and/or their Consultant on behalf of the homeowner. Preliminary inspections shall be completed in accordance with the requirements of Item A10. Rehabilitation work shall be completed in accordance with Item A11 or Item A12.

Clean Outs on Sanitary Services (Provisional) - Item No. A13

Reference: OPSS.MUNI 401, 410, 510; S-100.030

For the unit price bid the Contractor shall supply all labour, equipment and materials required to excavate and install a 100mm dia. cleanout at locations as directed by the Contract Administrator for the purposes of relining sanitary sewer services paid under Item A12.

The unit price bid shall include full restoration of excavation for installation of clean out to original condition or better including but not limited to any required, asphalt, concrete and soft scaping work. Excavation, asphalt repair and pipe installation shall be completed in accordance with the Sanitary Service by Open-Cut Method – Item A11 specification contained within this Contract.

The unit price shall include for ductile iron flush mount clean out caps for use in hard surfaces as manufactured by Watts or approved equivalent, or P.V.C. access lids in grassed areas as per S-100.030, as directed by the Contract Administrator.

Measurement for payment shall be each (ea.) for each clean out installed to facilitate relining. No work under this Item shall proceed without prior approval from the Contract Administrator.

Disposal of Unsuitable Earth Material (Provisional) - Item No. A14

Earth excavation material unsuitable for trench backfill may be encountered in the performance of this Contract. Disposal of unsuitable material shall be in accordance with Special Provisions General Clause 17.

This item shall only be used for payment when excavated earth material has a level of moisture saturation that is unsuitable to be put back in the road right-of-way. Suitable earth material can be used as trench backfill.

Material that is contaminated shall not be considered unsuitable for use as trench backfill within the road right-of-way unless deemed as such by the Contract Administrator. All soil / earth within or immediately adjacent to the public right-of-way shall be assumed to have levels of Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC) that exceeds the acceptable limits. Therefore, earth excavation material within or adjacent to the right-of-way shall not be considered to be contaminated if the SAR and / or EC limits are exceeded.

Measurement for payment shall be per metric tonne of material removed.

Payment at the Contract unit price shall be compensation in full for the supply of all labour, equipment, and materials required to completely remove, transport and dispose of any or all contaminated earth excavation material, including any permits, fees or other charges incidental to this item to the satisfaction of the Contract Administrator.

Imported Select Subgrade Material (SSM) (Provisional) - Item No. A15

For the unit price bid, Select Subgrade Material (SSM) shall be supplied and placed where excavated native material is not suitable for backfill as determined by the Geotechnical Engineer or the Contract Administrator.

SSM shall be supplied and placed to meet fill requirements for subgrade where quality native material is not available on site.

SSM shall be compacted to 98% SPMDD.

The Contractor is responsible for the quality of SSM brought to site. Should SSM not meet proper compaction and requirements as stated herein, the Contractor shall correct and modify their source.

Measurement for payment shall be per metric tonne of SSM placed.

The unit price shall be compensation for all for all labour, equipment, and material required to remedy unsuitable native material with the exception to disposal of unsuitable material. Payment for disposal of unsuitable material shall be included under Provisional Item A14.

19mm Clear Stone Pipe Bedding Wrapped in Non-Woven Geotextile (Provisional) – Item No. A16

Should the trench bottom following excavation to grade for sewer repair be deemed unsuitable by the Contract Administrator, 19mm clear stone wrapped in a non-woven geotextile fabric shall be used under this Item.

The unit price shall include for the following:

- Disposal of surplus excavated material;
- Supply and placing of clear stone in place of Granular 'A' bedding as specified;
- Non-Woven Terrafix 420R geotextile, or approved equivalent.

Measurement for payment shall be on a theoretical trench width basis.

No material shall be imported for use under this Item without authorization of the Contract Administrator.

Part B - General Items

Mobilization and Demobilization - Item No. B1

The Contract price stated in the Tender Form for this Item shall be compensation for the following:

- 1. Security protection of the Contractor's office, plant and sorted materials during the course of the Contract.
- 2. Moving onto the site and setting up the Contractor's office, storage facilities, plant, etc.
- 3. Providing all necessary access to the project including haul roads as required and the restoration of the surfaces to their original condition after the haul roads are removed.
- 4. Moving off the site and removal of the Contractor's office, storage facilities, plant, etc.

Payment will be made as follows:

- 50% of the lump sum stated in the Tender Form for this Item will be paid on the first Payment Certificate; and,
- the 50% balance will be paid on the Payment Certificate following issuance of the Certificate of Substantial Performance.

Supply and Maintain Field Office – Item No. B2

The Contractor, shall, at no additional expense to the Authority, supply an office for the exclusive use of the Contract Administrator. This office shall be located as directed by the Engineer, but in no case shall be more than one kilometre from the Contract limit.

The Contract Administrator's office shall have a minimum of 17 m2 of floor area, with a clear ceiling height of not less than 2.3 m, weatherproof, insulated walls and roof and a tight wooden floor raised at least 0.3 m clear of the ground. The office shall be fitted with a minimum of two glazed windows, both of which can be opened and are fitted with screens. The door shall have a reliable lock, all keys for which shall be in the care of the Contract Administrator. The Contractor shall supply electric light, heat when required, and an air conditioner of 8,000 BTU minimum when required, to the Contract Administrator's satisfaction and shall furnish the office with a minimum of one desk with drawers, one office chair, one drafting table, five chairs, two drafting stools, one filing cabinet, a waste paper basket and a broom.

Where the contractor elects a generator to supply power to the office, it shall be required to have a low-decibel noise rating.

Provide a mobile internet stick for high-speed internet access (e-mail service).

Where the Contractor elects to supply a combination office for the use of the Contract Administrator and his own staff, the minimum requirements for the Contract Administrator's accommodation as outlined shall be met. In addition, separate outside access for each office shall be provided and the Contract Administrator's office shall be partitioned off from that of the Contractor, on the inside. Any inside connecting door between the two offices shall be fitted with a lock or closer on the Contract Administrator's side.

Where the field office is situated remote from a built-up area and where alternate toilet facilities are not available, the Contractor shall also supply an acceptable chemical or equivalent dry toilet, in a location convenient to the Contract Administrator's office.

The field office and other facilities shall be provided at the site within 14 days of the Date of Notification to Commence Work or on the date of the Contractor's actual

commencement of work, whichever date occurs first, and shall remain at the site, if the Contract Administrator so requires, for a period of up to two months after the completed work is accepted by the Authority.

Payment shall be made at 50% on the first Payment Certificate and the 50% balance will be paid on the Payment Certificate following issuance of the Certificate of Substantial Performance.

Bonds, Insurance and Maintenance Security - Item No. B3

Reference: Construction Act, OPSS.MUNI 100

The Contractor shall provide bonding in accordance with GC 6.04 of OPSS.MUNI 100 and Section 85.1 and 85.2 of the Construction Act.

Include:

- 1. 100% Performance and Guaranteed Maintenance Bond for 24 months.
- 2. 100% Labour and Materials Payment Bond.
- 3. Liability Insurance based on the Contract Price.

100% payment of this Item shall be made on the first Payment Certificate.

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

General Conditions

The OPSS.MUNI 100 November 2019 General Conditions have not been reproduced as part of these Contract Documents.
It will be the Contractor's responsibility to obtain current copies of these Documents.
Project C14 0341

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Contract Administration Forms

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD Contract Administration Forms

Letter of Consent

General Release in Respect to Landfilling

Property Owner's Release

Substantial Performance Release of Claims Letter

Completion Release of Claims Letter

Contractor's Letterhead

Letter of Consent

Re: Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program

This is to confirm that The Corp	poration of the Town of Cobourg and its' Contractor,, have my authority to enter and
use designated areas of my construction activities.	property for material storage and/or access to facilitate
	agrees to restore the area used
to original condition plus any sp	
The Corporation of the Town or responsible for any damages a	of Cobourg and CIMA Canada Inc. will at no time be held and/or restoration.
Name of Property Owner:	
Address of Property Used:	
Material to be Stored:	
Special Conditions:	
Date Letter of Consent Expires:	
(Witness)	(Signature of Owner)
	(Date)

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program

General Release of
The Corporation of the Town of Cobourg
Its Servants and
CIMA Canada Inc.
In Respect of Landfilling

Know all persons by these presents that I, owner, remise and forever discharge The Corp	the
its servants and CIMA+ (Contract Administrate	
and administrators, of and from all manner o	f actions, causes of actions, suits, debts,
dues, accounts, bonds, covenants, contracts,	
against the said Owner, its servants and Con	
have a or which my heirs, executors, administ can, shall, or may have for or by reason of	
arising or which may arise as a result of m	
Contractor to place, deposit or dump any soils	
in, on or over my said lands.	
In Witness Whereof I have hereto set my han	ad this
•	
day of	_A.D. 20
Witness	Signature

Final Payment will not be paid to the Contractor until all the applicable Forms of Release have been signed by each of the property owners and have been received by the Owner and checked.

The Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program

Property Owner's Release of Privately Owned Land Used by the Contractor

Upon completion of the contract, the Contractor shall provide the Corporation of the Town of Cobourg with two (2) copies of a Form of Release signed by each property owner upon whose land he has entered for any reason in conjunction with the contract as follows:

Date		_			
To:					
RE:					
I here	eby certify that				
(Nam	ne of Contractor)				
	ulfilled the terms of our Agreemen actory condition.	t attached herewith and has left my pro	perty in a		
		nd release the Contractor, the Corporat MA Canada Inc., from further obligations			
Your	s truly,				
Signa	ature				
Prop	erty owner's name (Please Print)				
Lot_	Concession	Town			

Final Payment will not be paid to the Contractor until all the applicable Forms of Release have been signed by each of the property owners and have been received by the Owner and checked.

Substantial Performance Release of Claims Letter

Before the release of any portion of the 10% Statutory Holdback, the Contractor must provide a Substantial Performance Release Letter to the Contract Administrator using the following wording and format:

(Cont	tractor's letterhead)			
Date:				
To:	The Corporation of the Town of Cobou 55 King Street West Cobourg, ON K9A 2M2	ırg		
RE:	Sanitary Sewer Rehabilitation Progr Contract No. CO-21-05 PWD, Substa			
In the matter of Contract CO-21-05 PWD, being a contract between (<u>Contractor's name</u>) and the Town of Cobourg, I (<u>first & last name</u>), being the (<u>position</u>) of the above named company, hereby certify that (company name) agrees that the amount of \$xxxx.xx (including HST) represents the total value of work completed under this contract up to (<u>cut-off of next payment</u>).				
(xxx l	peing the date of Substantial Performan	<u>ce.</u>)		
I further certify that (<u>company name</u>) has no further claims related to work performed on this Contract on or before the date of Substantial Performance except as noted below.				
I further certify that (company name) will expeditiously complete any and all outstanding work and to discharge all unfulfilled obligations under the Contract.				
Outstanding issues previously submitted in accordance with GC 3.13.03:				
1.				
2.				
3.				
Signa	ture	Date		
Name	<u> </u>	Position		

Completion Release of Claims Letter

Before the release of the Completion Payment Certificate or Invoice, the Contractor must provide a Completion Release Letter to the Contract Administrator using the following wording and format:

(Cont	ractor's letterhead)	
Date:		
То:	The Corporation of the Town of Cobou 55 King Street West Cobourg, ON K9A 2M2	ırg
RE:	Sanitary Sewer Rehabilitation Progr Completion Release of Claims	ram, Contract No. CO-21-05 PWD
and the compact (included repression compact)	ne Town of Cobourg, I (<u>first & last name</u> any, hereby certify that (<u>company na</u> ding HST) as shown on your propose	ing a contract between (<u>Contractor's name</u>); being the (<u>position</u>) of the above named <u>me</u>) agrees that the amount of \$xxxx.xx ed Completion Payment Certificate No. <u>#</u> , ppleted under this Contract, subject to the :
Outst	anding issues previously submitted in a	ccordance with GC 3.13.03:
1.		
2.		
3.		
Signat	ure	Date
Name		Position

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Standard Drawings

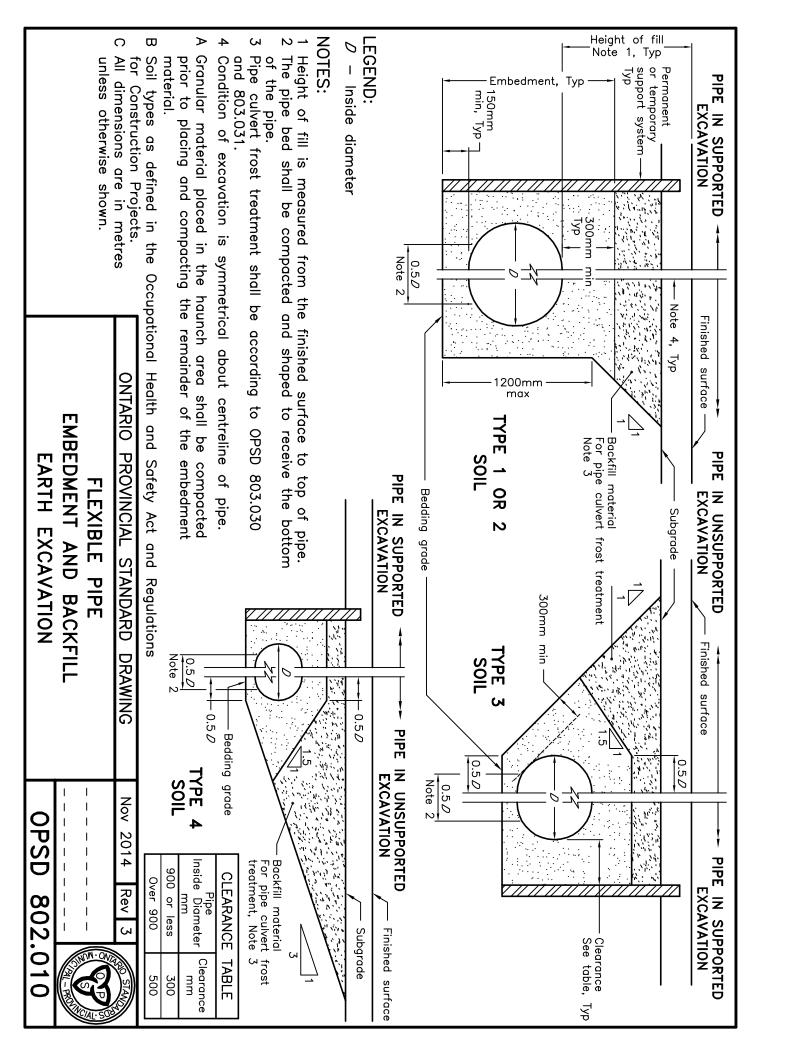
Corporation of the Town of Cobourg

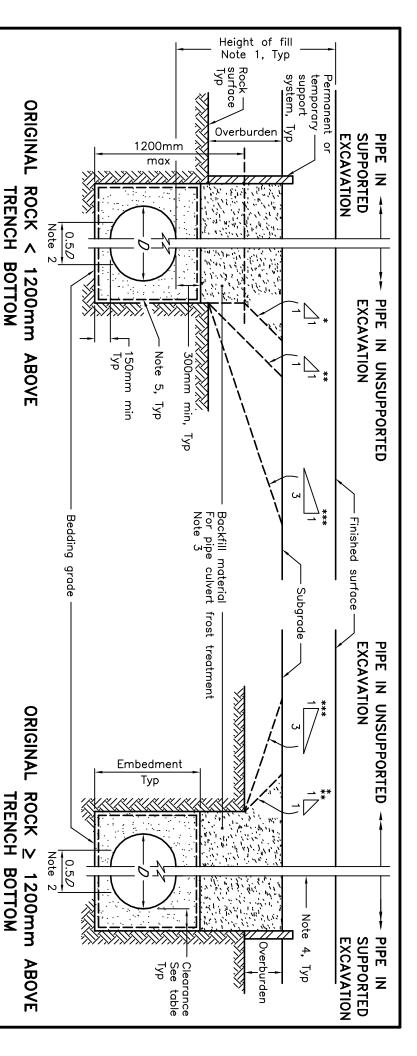
Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD Index To Standard Drawings

Standard	Description
OPSD -	
802.010	Flexible Pipe Embedment and Backfill, Earth Excavation
802.013	Flexible Pipe Embedment and Backfill, Rock Excavation
802.030	Rigid Pipe Bedding, Cover and Backfill, Type 1 or 2 Soil – Earth Excavation
802.031	Rigid Pipe Bedding, Cover and Backfill, Type 3 Soil – Earth Excavation
802.032	Rigid Pipe Bedding, Cover and Backfill, Type 3 Soil – Earth Excavation
802.033	Rigid Pipe Bedding, Cover and Backfill – Rock Excavation
S –	
100.010	Sanitary Sewer House Connections and Saddles (100mm and 150mm Pipe)
100.030 200.030	Valve Box for PVC Sanitary Sewer Cleanouts Supports for Watermain, Sewers, Piping and Conduits Crossing Trenches

^{*}Contractors attention is called to the following website to review and agree to the Regional Municipality of Durham's Design and Construction Specifications for Regional Services disclaimer prior to referencing the Region Standard Drawings listed above.

https://apps.durham.ca/Applications/Works/DCSpecs/Disclaimer.aspx





- Height of fill is measured from the finished surface to top of pipe.
- 2 of the pipe. The pipe bed shall be compacted and shaped to receive the bottom
- W 4 D Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
 - Condition of excavation is symmetrical about centreline of pipe.
- Embedment material shall be wrapped in non-woven geotextile when specified
- \triangleright Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material
- W Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
- \circ Fractured rock shall be treated as Type 1 soil.
- O All dimensions are in metres unless otherwise shown.

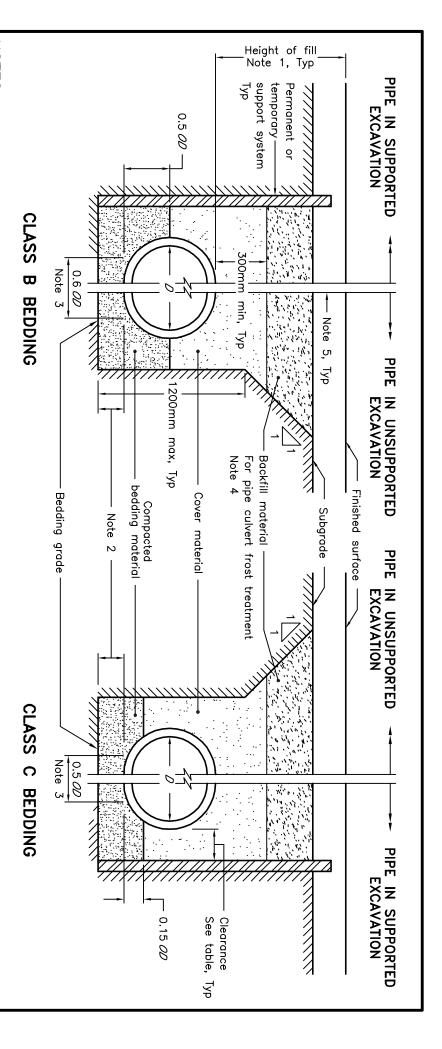
LEGEND:

- \mathcal{O} Inside diameter
- Type 1 or 2 soil
- Type 3 soil Type 4 soil

CLEARANCE	TABLE
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ROCK EXCAVATION	EMBEDMENT AND BACKFILL	FLEXIBLE PIPE	ONTARIO PROVINCIAL STANDARD DRAWING	
OPSD	 	 - - - -	Nov 2014 Rev 3	
80;		- - -	Rev	





- Height of fill is measured from the finished surface to top of pipe. The minimum bedding depth below the pipe shall be 0.15.2. In no case shall this dimension be less than 150mm or greater than 300mm.
- The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
- Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
- Ω Condition of excavation is symmetrical about centreline of pipe.
- ➣ Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
- ϖ All dimensions are in metres unless otherwise shown.

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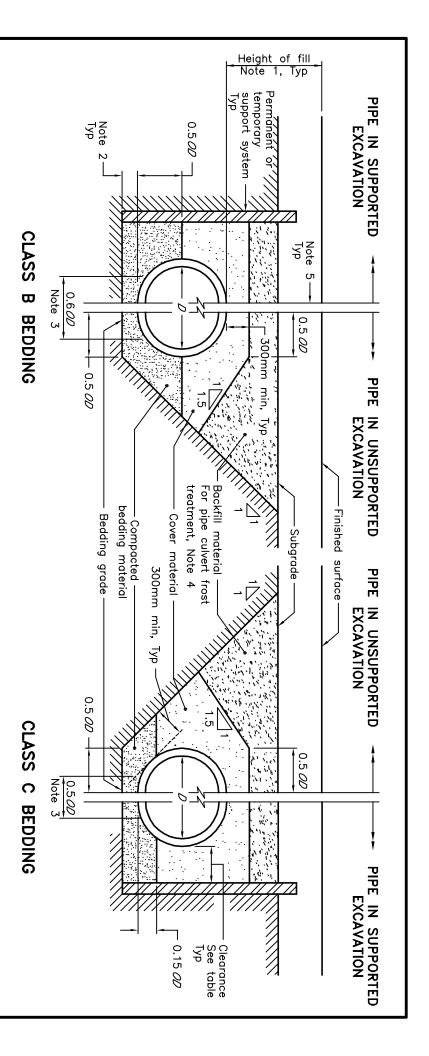
-00 0 -Inside diameter Outside diameter

500	Over 900
300	900 or less
Clearance mm	Pipe Inside Diameter mm
TABLE	CLEARANCE

ONTARIO PROVINCIAL STANDARD DRAWING RIGID PIPE BEDDING, COVER, AND BACKFILL	Nov 2015
TYPE 1 OR 2 SOIL - EARTH EXCAVATION	OPSD

Rev

802.030



- Height of fill is measured from the finished surface to top of pipe. The minimum bedding depth below the pipe shall be 0.15/2. In no case shall this dimension be less than 150mm or greater than 300mm.
- The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
- 4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
- Ω Condition of excavation is symmetrical about centreline of pipe.
- Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
- All dimensions are in metres unless otherwise shown.

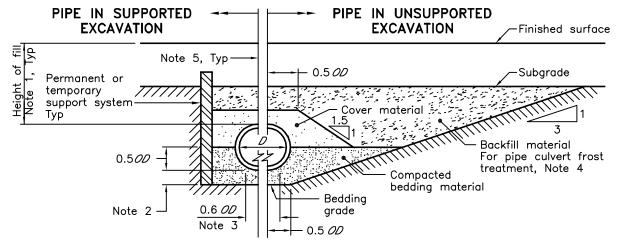
w

LEGEND:

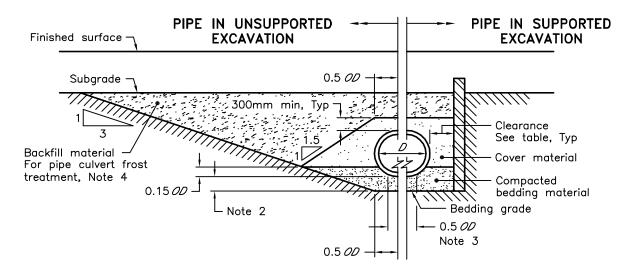
00 — Outside diameter D – Inside diameter

Over 900	900 or less	Pipe nside Diameter mm	CLEARANCE
500	300	Clearance mm	TABLE

			O)
TYPE 3 SOIL - EARTH EXCAVATION	COVER, AND BACKFILL	RIGID PIPE BEDDING,	ONTARIO PROVINCIAL STANDARD DRAWING
OPSD 8	1 1 1 1 1 1 1		Nov 2015 Rev
02.0		 - 	v 3



CLASS B BEDDING



CLASS C BEDDING

CLEARANCE	TABLE
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

LEGEND:

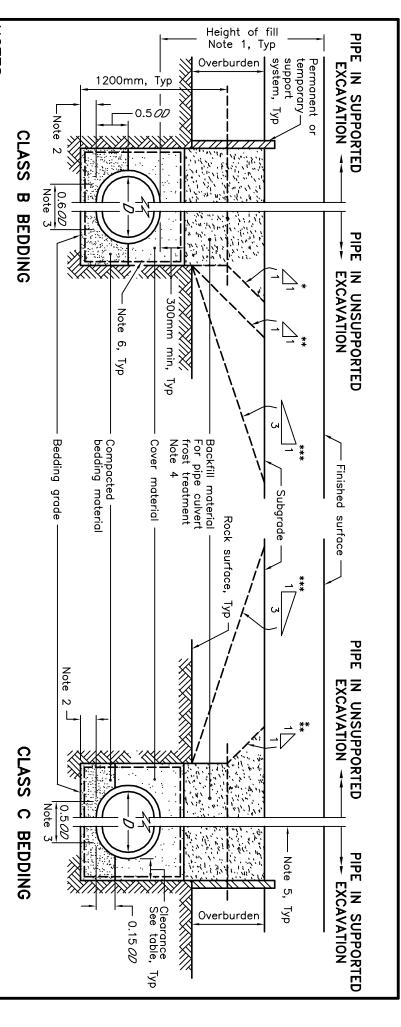
 \mathcal{D} - Inside diameter

OD - Outside diameter

NOTES:

- 1 Height of fill is measured from the finished surface to top of pipe.
- 2 The minimum bedding depth below the pipe shall be $0.15\mathcal{D}$. In no case shall this dimension be less than 150mm or greater than 300mm.
- 3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
- 4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
- 5 Condition of excavation is symmetrical about centreline of pipe.
- A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
- B All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015 Rev 3
RIGID PIPE BEDDING,	
COVER, AND BACKFILL	
TYPE 4 SOIL — EARTH EXCAVATION	OPSD 802.032



- 1 Height of fill is measured from the finished surface to top of pipe.
- 2 The minimum bedding depth below the pipe shall be 0.250. In no case shall this dimension be less than 150mm or greater than 300mm.
- S The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
- 4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
- თ Ω Embedment material shall be wrapped in non-woven geotextile when specified Condition of excavation is symmetrical about centreline of pipe.
- Soil types as defined in the Occupational Health and Safety Act and
- Regulations for Construction Projects.
- W Fractured rock shall be treated as Type 1 soil.

 \circ

unless otherwise shown.

All dimensions are in metres ONTARIO PROVINCIAL STANDARD DRAWING COVER, RIGID PIPE BEDDING, ROCK AND BACKFILL **EXCAVATION**

LEGEND:

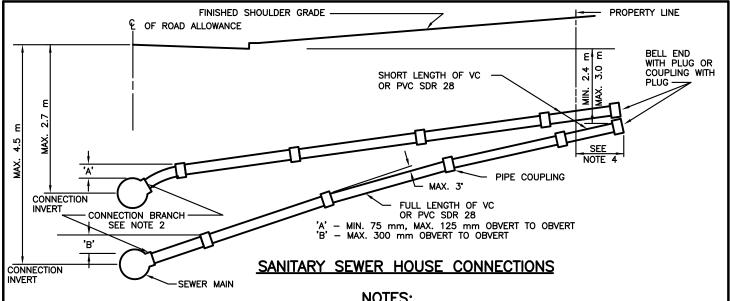
00 - Outside diameter ∠ – Inside diameter Type 1 or 2 soil

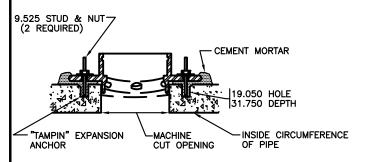
Type 3 soil Type 4 soil

Over 900	900 or less	Pipe nside Diameter mm	CLEARANCE
500	300	Clearance mm	TABLE

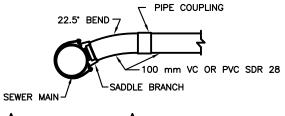
	Nov 2015
	Rev
	3
3	

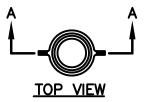
OPSD 802.033

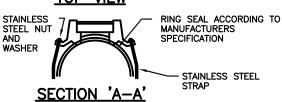




MORTAR-ON SADDLES FOR CONCRETE MAINS OVER 450 mm DIAMETER



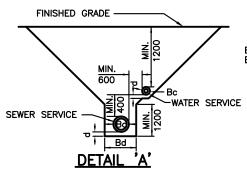




CAST-IRON SADDLE BRANCH FOR CONNECTION TO EXISTING MAINS OTHER

NOTES:

- IN NEW SUBDIVISIONS THE SANITARY SEWER AND WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN SEPARATE TRENCHES. IN CASES WHERE THE SEPARATE TRENCH INSTALLATION IS
- IN CASES WHERE THE SEPARATE TRENCH INSTALLATION IS NOT PRACTICAL, SANITARY SEWER AND WATER SERVICE CONNECTIONS MAY BE INSTALLED IN A COMMON TRENCH AS PER DETAIL 'A'. IN NEW SUBDIVISIONS ALL CONNECTIONS TO THE SEWERS ARE TO BE MADE WITH A FACTORY MANUFACTURED 'T'. FOR CONNECTIONS TO EXISTING SANITARY SEWERS, OTHER THAN PVC A SADDLE CONNECTION MAY BE USED. MORTAR—ON SADDLES SHALL BE USED ON CONCRETE PIPE GREATER THAN 450 mm DIAMETER. CONNECTIONS TO EXISTING PVC SEWERS SHALL BE MADE WITH A FACTORY MANUFACTURED TEE OR AN APPROVED SADDLE. CONNECTIONS TO EXISTING A.B.S. TRUSS PIPE SHALL BE MADE WITH A SOLVENT WELDED SADDLE. A FACTORY MANUFACTURED THE OR AN APPROVED SADDLE SHALL BE USED IN THE FIRST UPSTREAM LEG FOR ALL SEWER CONNECTIONS.
- 45° STRAP ON SADDLE SHALL BE USED ON SEWERS OTHER THAN PIPE, WHEN LATERAL INTERSECTS SEWER MAIN AT AN ACUTE ANGLE
- THE SEWER CONNECTION SHALL BE LAID FROM THE MAIN TO 1.5 m BEYOND THE PROPERTY LINE IN NEW SUBDIVISIONS ONLY.
- THE END OF ALL SEWER PIPE SHALL BE MACHINED. ALL CUTTING AND MACHINE SHALL BE DONE BY CONTRACTOR.
 A COUPLING SHALL BE INSTALLED AT DEAD END AND SHALL BE
- PLUGGED USING A WATER TICHT PLUG.
 DEFLECTIONS OF PIPE AT JOINTS IS NOT TO EXCEED 75 mm
 I.E.: 150 mm MAXIMUM DEFLECTION FOR A 3 m LENGTH OF ASBESTOS CEMENT PIPE 75 mm MAXIMUM DEFLECTION FOR 1.8 m LENGTH OF VETRIFIED CLAY PIPE
- PIPE COUPLING SHALL BE 'RING-TITE' OR EQUIVALENT. PVC SHALL BE BELL AND SPIGOT JOINT.
- REFER TO STD. S-200.010 FOR BEDDING REQUIREMENTS.
- WHEN MORTAR-ON SADDLES ARE USED, A MACHINE CUT OPENING SHALL BE MADE IN THE SANITARY SEWER WITH A CORING MACHINE. 10.
- 2% MIN. GRADE TO 10% MAX. GRADE FOR 100 mm DIA. PIPE.
- 1% MIN. GRADE TO 10% MAX. GRADE FOR 150 mm DIA. PIPE.



MIN. 75 mm, DEPTH OF BEDDING BELOW PIPE. OUTSIDE DIAMETER MINIMM WIDTH OF

Bd

TRENCH

Bc + 600 mm WITH MIN. OF 900 mm OR Bc + WIDTH OF SHORING + 600 mm

COMMON TRENCH DETAIL

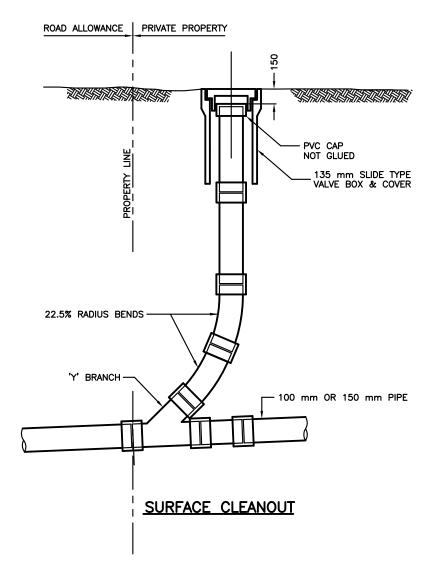
ALL DIMENSIONS IN MILLIMETRES EXCEPT WHERE NOTED



SANITARY SEWER HOUSE CONNECTIONS AND SADDLES (100 mm & 150 mm PIPE)

DWG. DATE: 1981 04 REVISION NO.: REV. DATE: 2013 04 SCALE: N.T.S.

S-100.010



- WHEN THE CLEANOUT IS LOCATED IN A DRIVEWAY, A STANDARD VALVE BOX IS REQUIRED.
 BEDDING DETAIL AS PER S-200.010.

ALL DIMENSIONS IN MILLIMETRES EXCEPT WHERE NOTED



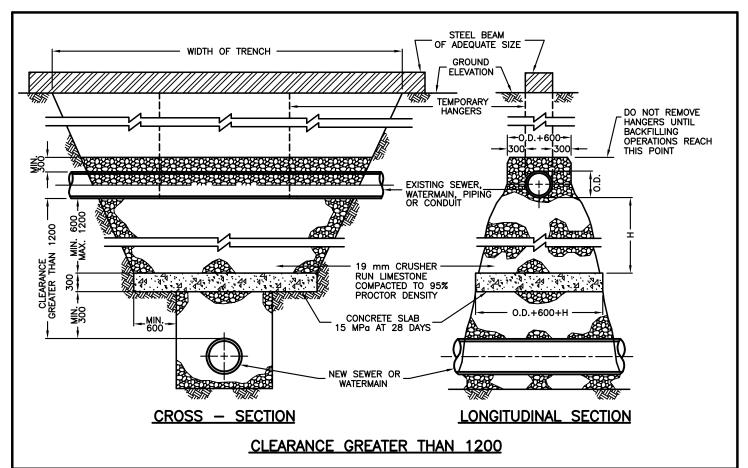
VALVE BOX FOR PVC SANITARY SEWER CLEANOUTS

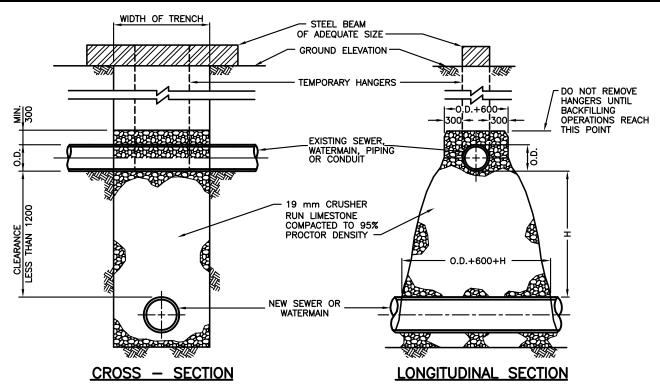
DWG. DATE: 1978 03 REVISION NO.: 8

REV. DATE: 2013 04

SCALE: N.T.S.

S-100.030







SUPPORTS FOR WATERMAIN, SEWERS,
PIPING AND CONDUITS CROSSING TRENCHES

CLEARANCE LESS THAN 1200

ALL DIMENSIONS IN MILLIMETRES EXCEPT WHERE NOTED.

DWG. DATE: 1983 04

REVISION NO: 6

REVISION NO.: 6
REV. DATE: 2013 04

SCALE: N.T.S.

S-200.030

Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

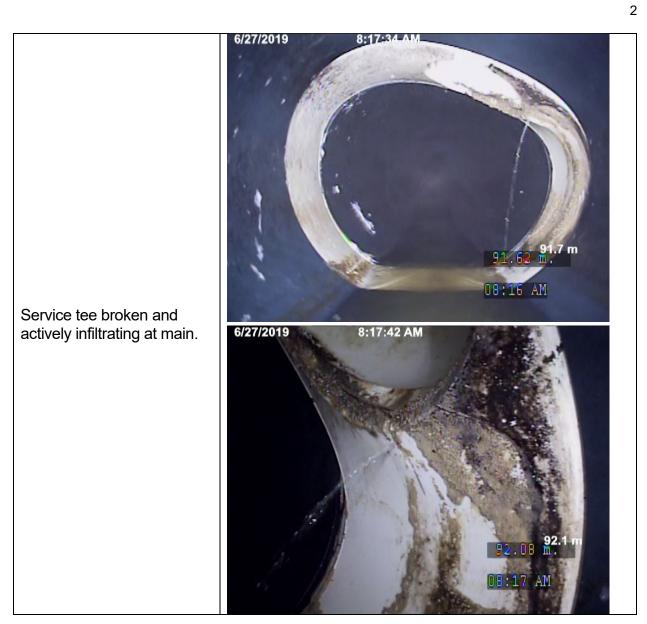
Typical Defects

Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD Typical Defects

Contained within this section are still images of pipe defects identified in initial CCTV inspection completed by the Town of Cobourg and identified for rehabilitation under this Contract. These images are intended to provide the Contractor with a general understanding for condition of the existing pipes and shall not be interpreted as the only possible types of defects. These images shall not relieve the Contractor from completing repairs at the Contract unit price should there be reasonable variation in the condition of the pipe. It shall be understood that not all locations identified for rehabilitation are included below.

PVC Typical Pipe Defects 6/27/2019 7:34:04 AM 30.01 m. 07:33 AM Location of tap-in service 6/27/2019 infiltrating. 07:33 AM





Service tee broken, not actively infiltrating.

Concrete/AC Typical Pipe Defects

Concrete pipe with protruding clay service actively infiltrating at main.



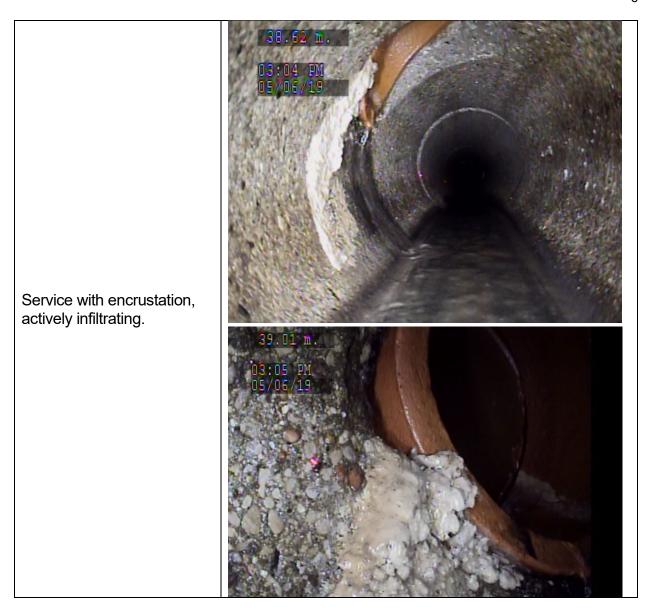
Deteriorating concrete pipe.



Concrete pipe with attached encrustation at pipe joints.



56.12 m. 06:35 PM Service with encrustation, not actively infiltrating. 9/8/2020 32.0 m 31.99 m. 11:06:40 AM Damaged mainline, not actively infiltrating.



Corporation of the Town of Cobourg Sanitary Sewer Rehabilitation Program Contract No. CO-21-05 PWD

Sanitary Sewer Table 1

Table 1: Sanitary Sewer Repairs***							
Мар	Upstream	Location (Relative to					
Identification	Maintenance	Upstream		Material			
Number	Hole ID	Maintenance Hole)	Length (m)	(Dia.)			
- Italiaci		h, Clean, CCTV*	Length (m)	(Diai)			
B25a	SA-0796	N/A	104	PVC (200)			
B30a	SA-0779	N/A	35	PVC (300)			
B31a	SA-1621	N/A	5	PVC (200)			
		CIPP Liner - MH to MH**		, ,			
B3a	SA-0827	N/A	11	PVC (450)			
B4a	SA-0135	N/A	79	CP (250)			
B5a	SA-0136	N/A	27	CP (250)			
B6a	SA-0140	N/A	50	CP (250)			
B17a	SA-0137	N/A	106	CP (250)			
B18a	SA-0138	N/A	114	CP (250)			
B19a	SA-0139	N/A	100	CP (250)			
B20a	SA-0141	N/A	100	CP (250)			
	Spot Repair b	y CIPP Liner - Mainline**					
B10a	SA-0758	65	2	PVC (200)			
B12a	SA-0750A	91	3	PVC (200)			
B26a	SA-0774	38.5	2	PVC(200)			
B27a	SA-0746	64.5	2.5	PVC (200)			
B29a	AMH 0145	32.5	2.5	AC (200)			
Spot Repair by CIPP Liner - Service Connection**							
B1a	SA-0821A	66.5	N/A	HDPE (300)			
B2a	SA-0822	21.7	N/A	PVC (300)			
B2b	SA-0822	40.9	N/A	PVC (300)			
B7a	SA-0770A	9.5	N/A	PVC (200)			
B8a	SA-0778	3.8	N/A	PVC (300)			
B8b	SA-0778	65	N/A	PVC (300)			
B9a	SA-0775A	17.5	N/A	PVC (250)			
B9b	SA-0775A	22	N/A	PVC (250)			
B10b	SA-0758	61.2	N/A	PVC (200)			
B11a	SA-0759	12.5	N/A	PVC (200)			
B13a	SA-0750	17	N/A	PVC (200)			
B13b	SA-0750	81.8	N/A	PVC (200)			
B14a	SA-0802	75.4	N/A	PVC (200)			
B14b	SA-0802	69	N/A	PVC (200)			
B15a	SA-0803	92.2	N/A	PVC (300)			

^{*}initial inspection unclear. Review of preliminary CCTV inspection required.

All segments with locations identified for rehabilitation must be Flushed, Cleaned and CCTV inspected as per the Contract Documents prior to completing rehabilitation work. *This table does not include quantities that may be used under this Contract pending review of preliminary inspection videos at the time of construction.

Spot Repair by CIPP Liner - Service Connection**					
B16a	SA-0805	14.4	N/A	PVC (300)	
B17b	SA-0137	50.9	N/A	CP(250)	
B18b	SA-0138	39.1	N/A	CP(250)	
B18c	SA-0138	59.1	N/A	CP(250)	
B19b	SA-0139	84.3	N/A	CP(250)	
B19c	SA-0139	86.4	N/A	CP(250)	
B20b	SA-0141	30.6	N/A	CP(250)	
B20c	SA-0141	45.2	N/A	CP(250)	
B21a	SA-1619	52.4	N/A	PVC (450)	
B22a	SA-0777	43.8	N/A	PVC (200)	
B22b	SA-0777	40.3	N/A	PVC(200)	
B23a	SA-0840	40.8	N/A	PVC (300)	
B24a	SA-0761	19.7	N/A	PVC (200)	
B28a	AMH 0144	86.7	N/A	AC (200)	
B28b	AMH 0144	33.5	N/A	AC (200)	
B29b	AMH 0145	34.5	N/A	AC (200)	

^{*}initial inspection unclear. Review of preliminary CCTV inspection required.

**All segments with locations identified for rehabilitation must be Flushed, Cleaned and CCTV inspected as per the Contract Documents prior to completing rehabilitation work.

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Corporation of the Town of Cobourg

Sanitary Sewer Rehabilitation

Program Contract No. CO-21-05 PWD

Repair Locations Map G1

